

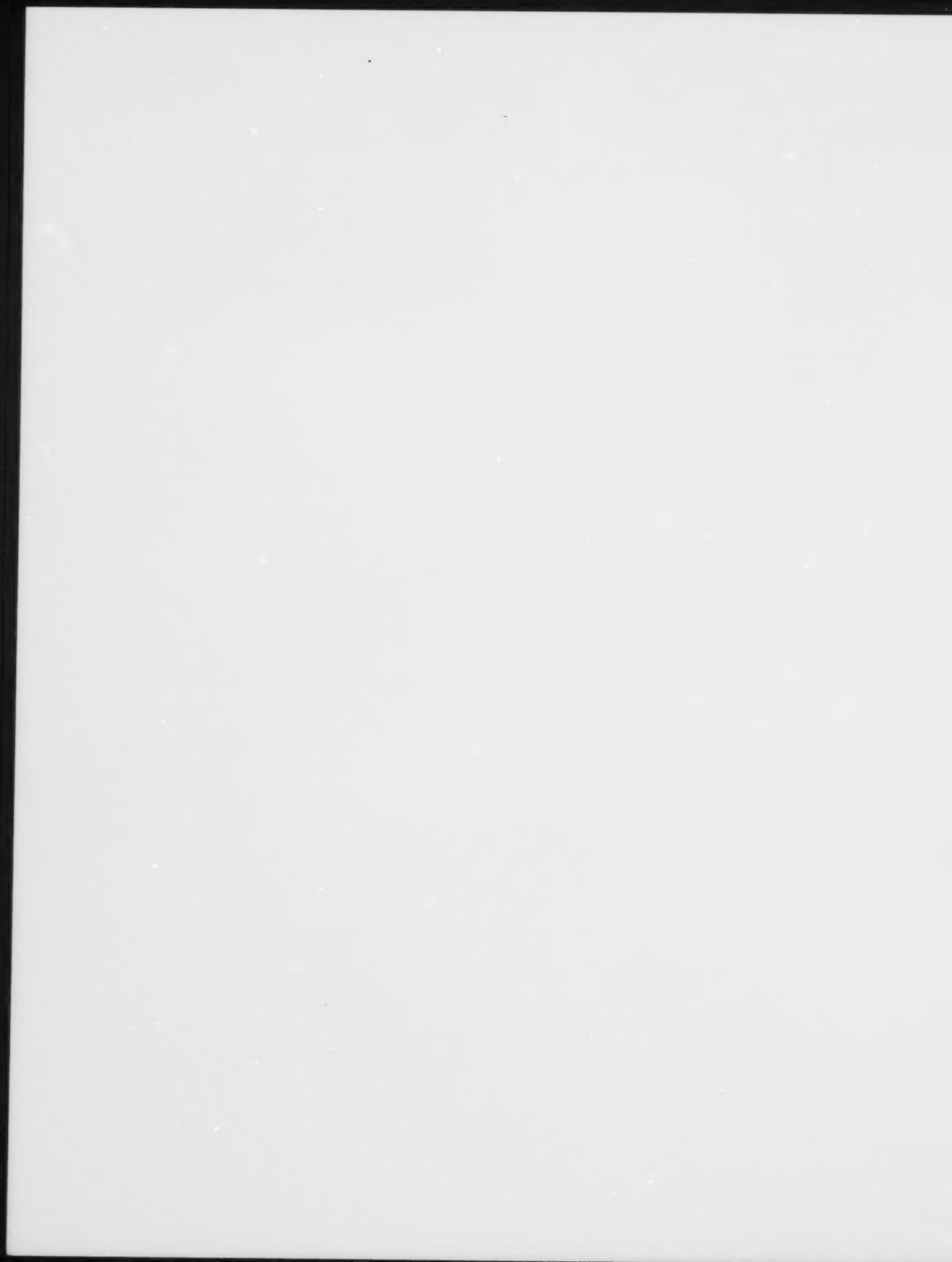
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Inventory of Health and Social Service Personnel, 1991



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Foreword

The Alberta Health and Social Services Disciplines Committee is an interdepartmental body of senior officials representing the following government departments: Advanced Education, Career Development and Employment, Family and Social Services, Health, and the Professions and Occupations Bureau. The primary function of the Committee is to advise the provincial government on issues relating to health and social service personnel and training. To carry out this mandate, the Committee collects information and data through surveys and monitors workforce supply and demand through ongoing research activities.

The Committee recognizes the need to promote awareness of health and social service personnel concerns. With this in mind, the Committee disseminates workforce information to a number of institutions, organizations and the general public. **Inventory of Health and Social Service Personnel**, (previously titled "Health and Social Service Manpower in Alberta") an annual publication, provides a range of information on almost forty health and social service occupations in Alberta. The Committee is confident this publication continues to serve as a useful reference.

On behalf of the Alberta Health and Social Services Disciplines Committee, I wish to thank the staff of the professional associations, licensing boards, post-secondary institutions, and employing agencies for providing valuable data to us. Through their support and cooperation we are able to publish **Inventory of Health and Social Service Personnel, 1991**.

Elvin Christenson, F.C.A.
Chairman, Alberta Health and Social
Services Disciplines Committee

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Introduction

This is the fourteenth annual publication on health and social service personnel in Alberta. The Alberta Health and Social Services Disciplines Committee produces this report for the purpose of making workforce information available to the public. The report contains information and statistical data on 38 human service occupations for the year ending December 31, 1991. Included are:

- functional definitions;
- information on professional associations/licensing bodies;
- legislation;
- educational programs, enrolments and graduates;
- data on practitioners by geographical location and community size;
- historical and comparative workforce figures.

Scope of Coverage

These are the thirty-eight human service occupations included in this report:

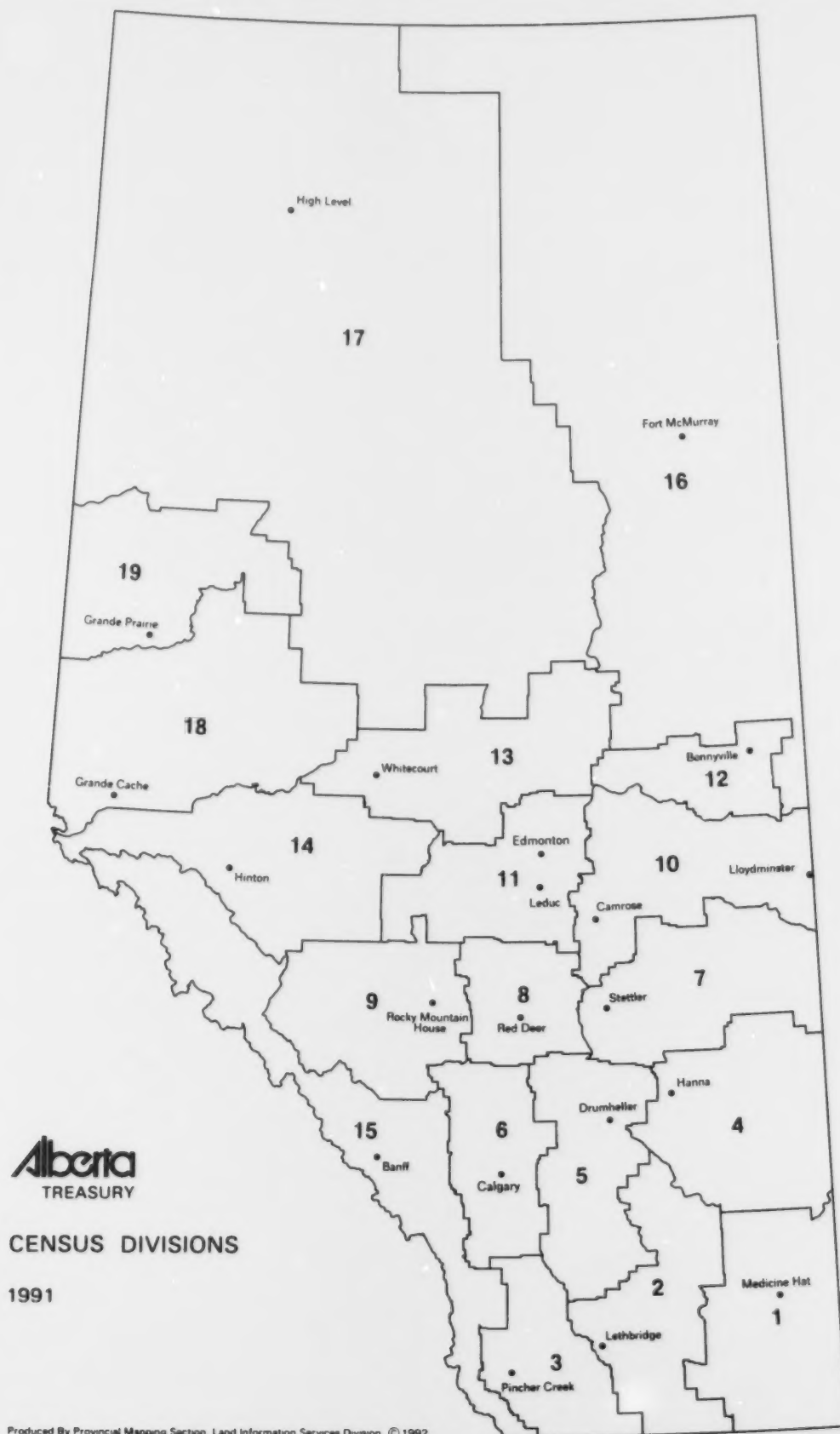
audiologists/speech pathologists, biomedical engineers, child and youth care workers, chiropractors, combined laboratory and x-ray technicians, community health representatives, day care workers, dental assistants, dental hygienists, dental technicians, dentists, denturists, dietary technologists, dietitians/nutritionists, emergency medical technicians, health record administrators, health record technicians, licensed practical nurses, medical laboratory technologists, medical radiation technologists, occupational hygienists/occupational hygiene technologists, occupational therapists, ophthalmic dispensers/opticians, optometrists, pharmacists, pharmacy assistants, physicians, physical therapists, podiatrists, prosthetists and orthotists, psychologists, public health inspectors, recreational therapists, registered nurses, registered psychiatric nurses, rehabilitation practitioners, respiratory therapists, social workers.

The health care and social service sector contains numerous occupations. However, due to the constraints of time and other resources, it is not possible for all occupations to be reported in this publication. Two criteria have been used in the decision to include an occupation: legislative recognition and the existence of training programs. Only occupations with professional legislation and/or formal training programs in Alberta (or inter-provincial training agreements) are included.

As in previous reports, data on personnel is presented by geographic distribution. Census divisions are used for this purpose. As of 1986, the number of census divisions increased from 15 to 19. As a result, census division data before and after 1986 are not comparable. In conjunction with this change, the boundaries of the Census Metropolitan Areas of Calgary and Edmonton increased to include a number of surrounding areas.¹ Workforce information for the two Census Metropolitan Areas is presented separately from their respective census divisions in order to provide a clearer picture of the urban and non-urban distribution of personnel. The map on the following page shows the census divisions and the major urban centres within each division.

In addition to the distribution of personnel by census divisions, the distribution of personnel by community size is also included for each occupation.

¹ [The Census Metropolitan Area of Edmonton includes the cities of Edmonton, Fort Saskatchewan, Leduc, and St. Albert; the towns of Beaumont, Bon Accord, Calmar, Devon, Drayton Valley, Gibbons, Morinville, Redwater, Spruce Grove, and Stony Plain; the villages of Breton, Entwistle, Legal, New Sarepta, Thorsby, Wabamun, and Warburg; the summer villages of Betula Beach, Edmonton Beach, Golden Days, Itaska Beach, Kapasiwin, Lakeview, Point Alison, Seba Beach, and Sundance Beach; the municipal district of Sturgeon #90; and the counties of Leduc #25, Parkland #31, Strathcona #20; the Alexander #134 and Wabamun #133A Indian Reserves.] [The Census Metropolitan Area of Calgary includes the cities of Airdrie and Calgary; the towns of Cochrane and Crossfield; the villages of Beiseker and Irricana; the summer village of Chestermere Lake; the municipal district of Rocky View #44, and Sarcee Indian Reserve #145.]



Information Sources

The principal sources of information and data contained in this report are:

1. The 1980 edition of the **Canadian Classification and Dictionary of Occupations**;
2. Current professional legislation;
3. Provincial professional associations or licensing bodies for health and social service occupational groups (two of the 38 groups have no professional association or licensing body);
4. Surveys of health and social service personnel working in Alberta conducted by the Alberta Health and Social Services Disciplines Committee;
5. Survey of health and social service education programs in Alberta conducted by Alberta Advanced Education;
6. Reports published by Health and Welfare Canada; and
7. Population data provided by the Alberta Bureau of Statistics, and Statistics Canada.

The definitions in the **Canadian Classification and Dictionary of Occupations** have been used for most disciplines in this publication. In some cases, definitions were obtained from professional statutes or other sources. Information on legislation was obtained from provincial statutes governing the professions.

About half of the workforce data appearing in the report were obtained from professional associations and licensing bodies, particularly in cases where registration with a professional association or licensing body was mandatory. To obtain this information, a survey of professional associations and licensing bodies was conducted by the Alberta Health and Social Services Disciplines Committee in December 1991. For the remaining workforce groups, the survey of employers of health and social service personnel conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the data source.

Alberta Health and Social Service Education Programs Inventory December 1991 was the source of information on basic education programs contained in this publication. The inventory was compiled by Alberta Advanced Education through a survey of human services educational programs in Alberta's post-secondary institutions.

In order to put its workforce situation in a regional context, Alberta's personnel-to-population ratios for selected occupations were compared to those for Western Canada (Manitoba, Saskatchewan, Alberta and British Columbia combined) where similar information from these other jurisdictions was available. Health and Welfare Canada provided this information.

Data Limitations

Accuracy is considered of utmost importance in data collection. However, there can be deficiencies in the sources of information. Some of these limitations are:

1. Some professional association registries included retired, honorary or associate members who may not have full practice rights. Where possible, such members were excluded for the purpose of this publication.
2. The number of practitioners is likely to be underestimated for those occupational groups where registration is not mandatory in order to practise. For such groups, the survey of employers of health and social service personnel was used as the source of data. Workforce statistics from the survey of employers indicate the number of personnel practising at the time of the survey. The registration data from professional associations or registration bodies provide workforce data about the potential number of personnel in the province; the actual number practising is generally lower than the total registered.
3. The dates for the data will vary depending on the source. March 31 is the date of the annual employment survey. However, data from professional associations is based on the associations' membership year. For the majority of groups this date is December 31.

Workforce Situation in 1991

Since 1979, the Alberta Health and Social Services Disciplines Committee has conducted workforce surveys of employers of health and social service personnel in Alberta. Sixteen surveys have been completed since then, two annually from 1979 to 1981, and one in each year since 1982. The Committee's sixteenth employer survey was conducted on March 31, 1991. Data were sought on 140 occupations from 5,373 employers, with a response rate of 98.6 percent.

Based on the March 31, 1991 survey, there were 86,335 persons employed in the health and social service sector which represented 72,818 "full-time equivalent" established positions.¹ At the time of the survey, there were 1,929 vacant "full-time equivalent" positions, representing an average vacancy rate of 2.6 percent. There were 9,664 "full-time equivalent" resignations during the period from April 1, 1990 to March 31, 1991, representing an average turnover rate of 13.3 percent during the 12-month period prior to the survey.

As of March 31, 1991 the occupational groups experiencing the highest vacancy rates were:

• Dental Hygienists	16.2%
• Prosthetists/Orthotists	13.0%
• Physical Therapists	10.0%
• Occupational Therapists	9.6%
• Registered Dental Technicians	7.5%
• Diagnostic Medical Sonographers	7.4%
• Electroencephalograph Technicians	6.2%
• Speech — Language Pathologists	5.9%
• Public Health Inspectors	5.7%
• Homehelpers	5.7%

The occupational groups with the highest turnover rates from April 1, 1990 to March 31, 1991 were:

• Audiometric Technicians	60.7%
• Day Care Workers	36.0%
• Ophthalmic Dispensers/Opticians (Non-Certified)	27.6%
• Homemakers	26.8%
• Speech Pathology Aides	22.8%
• Rehabilitation Practitioners	22.1%
• Recreational Therapy Aides	19.7%
• Child and Youth Care Workers (excluding day care)	19.6%
• Optometric Assistants	18.3%
• Occupational Therapists	17.7%

¹ "Full-time equivalent" established positions were calculated by adding data on full-time employment and vacancies to data on part-time employment and vacancies which had first been converted to represent full-time employment.

Training of Health and Social Service Personnel

In 1990-91, Alberta had a total of 126 educational programs to train health and social service personnel. These training programs were found in 24 post-secondary educational institutions, hospitals, and cancer treatment centres in the province. In a few areas where there were no educational programs in the province, Alberta had inter-provincial training agreements with institutions outside the province.

Alberta Advanced Education, on behalf of the Alberta Health and Social Services Disciplines Committee, publishes annually a report entitled **Alberta Health and Social Service Education Programs Inventory**. The 1990-91 edition of this publication contains the following information on health and social service training programs in Alberta:

- Location and length of training programs;
- Number of applicants;
- First-year enrolment quotas;
- Actual enrolments; and
- Number of graduates.

Readers who wish to obtain more information in these areas should consult this publication.

Format of the Publication

The format of this report remains the same as previous editions. The 38 occupational groups are organized alphabetically by chapter. Each chapter contains sections on:

- The functional definition and statistical highlights of the occupational group;
- Professional association, licensing authority, and regulatory legislation;
- The number of personnel, their geographical distribution, historical and, if available, comparative workforce data; and
- Basic education programs.

There is a breakdown by specialty for three of the occupational groups: dentists, physicians, and registered nurses.

The table on pages 6 and 7 provides summary information for the 38 occupational groups.

Summary Information

	Number of Registered/ Practising Personnel	Personnel- to- Population Ratio	Legislation	Number of Training Programs	Number of Graduates
Audiologists and Speech Pathologists	370	1:6,880		2	37
Biomedical Engineers	17	1:149,738		3	N/A ¹
Child and Youth Care Workers	1,861	1:1,368		3	81
Chiropractors	376	1:6,770	X	—	—
Combined Laboratory and X-Ray Technicians	346	1:7,357	X	1	14
Community Health Representatives	163	1:15,617		1	18
Day Care Workers	6,262	1:406		14	328 ²
Dental Assistants	2,392	1:1,064	X	3	157
Dental Hygienists	739	1:3,444	X	1	42
Dental Technicians	169	1:15,062	X	1	17
Dentists	1,358	1:1,874	X	1	43
Denturists	231	1:11,020	X	1	12
Dietary Technologists	318	1:8,005		2	47
Dietitians/Nutritionists	435	1:5,852	X	3	54
Emergency Medical Technicians	1,537	1:1,656	X	4	238
Health Record Administrators	139	1:18,313		1	15
Health Record Technicians	355	1:7,170		1	19
Licensed Practical Nurses	6,266	1:406	X	3 ³	266
Medical Laboratory Technologists	2,610	1:975		3	125
Medical Radiation Technologists	1,329	1:1,942	X	4	67
Occupational Hygienists and Occupational Hygiene Technologists	136	1:18,717		2	10
Occupational Therapists	599	1:4,250	X	2	45
Ophthalmic Dispensers/Opticians	488	1:5,216	X	2	70
Optometrists	215	1:11,840	X	—	—

¹ Data on the number of graduates is not included due to unavailability.

² Data on the number of graduates in the baccalaureate programs from the University of Alberta and the University of Lethbridge are not included due to unavailability.

³ Excluded from the total number of training programs are the three post-basic courses, and the nursing assistant refresher program.

Summary Information continued

	Number of Registere/ Practising Personnel	Personnel- to- Population Ratio	Legislation	Number of Training Programs	Number of Graduates
Pharmacists	2,275	1:1,119	X	1	114
Pharmacy Assistants	705	1:3,611		1	39
Physical Therapists	1,280	1:1,989	X	2	72
Physicians	4,441	1:573	X	2	182
Podiatrists	27	1:94,280	X	—	—
Prosthetists and Orthotists	20	1:127,278		—	—
Psychologists	1,251	1:2,035	X	10	111
Public Health Inspectors	119	1:21,391	X	—	—
Recreational Therapists	323	1:7,881		4	42 ¹
Registered Nurses	23,616	1:108	X	27 ²	1,374
Registered Psychiatric Nurses	929	1:2,740	X	2 ³	47
Rehabilitation Practitioners	1,426	1:1,785		10	139
Respiratory Therapists	632	1:4,028	X	2	67
Social Workers	2,926	1:870	X	7	381

¹ Data on the number of graduates, in the baccalaureate and master's program, from the University of Alberta is not included due to unavailability.

² Excluded from the total number of training programs are the refresher courses in nursing offered by six institutions.

³ Psychiatric Nursing Diploma program offered at Alberta Hospital, Edmonton was discontinued. Enrolment for the program was suspended in 1989, and the last class graduated in 1991.

Audiologists and Speech Pathologists

I. Overview

Definition: **Audiologists**

Provide diagnostic evaluation and rehabilitative services and conduct research related to hearing. Administer air and bone conduction and other audiometric tests and examinations to determine hearing efficiency. Coordinate audiometric results with medical, social, behavioural and other diagnostic data. Evaluate total response pattern and acoustic tests to differentiate between organic and non-organic hearing loss. Plan, direct and participate in counseling, speech-reading and other rehabilitation programs. Act as consultants to educational, medical and other professional groups. Conduct research in physiology, pathology, biophysics and psychophysics of auditory system, if required. Design and develop clinical and research procedures and apparatus, if required.

Speech Pathologists

Diagnose and treat speech, language and voice disorders and perform related research. Administer tests and observe patient to diagnose nature of disorder and to evaluate degree of impairment. Plan and conduct remedial exercises and programs to correct stuttering, abnormal articulation and other disorders. Provide speech training for patient with communication problems caused by cerebral palsy, surgical removal of larynx, hearing deficiencies or other impairments. Plan individual or group therapy in rehabilitation of communication disorders. Counsel and guide language-handicapped individuals and their families, teachers or employers. Act as consultants to educational, medical, dental and other professional groups. Conduct research related to development of diagnostic and treatment techniques and procedures or design of apparatus.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 435 audiologists and speech pathologists registered with the Speech, Language and Hearing Association of Alberta (SHAA) in 1991.¹ Of these, 348 had full practice rights, 67 were student members, 17 were practising out of province and 3 were retired members. However, registration is not compulsory for audiologists and speech pathologists. According to a survey of health and social service employers conducted by the Alberta Health and Social Services Disciplines Committee, there were 32 audiologists and 370 speech pathologists practising in Alberta in 1991.²

According to this survey, approximately 45 percent of these professionals were employed by health units. Another 29 percent worked in acute care hospitals and 18 percent were employed by local school boards and in schools for the handicapped.³

Eighty-eight percent of the audiologists and 67 percent of the speech pathologists were employed in the Census Metropolitan Areas of Calgary and Edmonton. The provincial audiologist-to-population ratio was 1:79,548 and the provincial speech pathologist-to-population ratio was 1:6,880 in 1991.

¹ Source: Speech, Language and Hearing Association of Alberta. Number of speech and hearing personnel registered with the SHAA as of October 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

³ Ibid.

II. Professional Association and Legislation Information

- a) Licensing, Registration, or Certification Authority:**
None.

- b) Professional Association:**
Speech, Language and Hearing Association of Alberta
Box 86, Main Post Office
Edmonton, Alberta
T5J 2G9

President: Ms. Cori Mason
President Elect: Ms. Betty Norman Bray

- c) Legislation:**
There is no legislation regulating audiologists and speech pathologists in Alberta at present.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Audiologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to Population Ratio
1 (Medicine Hat)	0	58,179	—
2 (Lethbridge)	1	119,110	1:119,110
3 (Pincher Creek)	1	36,149	1:36,149
4 (Hanna)	0	11,947	—
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	0	124,098	—
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	0	78,483	—
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	0	43,277	—
13 (Whitecourt)	0	57,521	—
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	0	49,490	—
17 (High Level)	0	48,962	—
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	2	74,855	1:37,428
Census Metropolitan Area (CMA) of Calgary	13	754,033	1:58,003
Census Metropolitan Area (CMA) of Edmonton	15	839,924	1:55,995
Provincial Total	32	2,545,553	1:79,548

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Audiologists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	13	754,033	1:58,003
Census Metropolitan Area (CMA) of Edmonton	15	839,924	1:55,995
10,000 to 69,999			
Camrose	0	13,420	—
Fort McMurray	0	34,706	—
Grande Prairie	1	28,271	1:28,271
Lethbridge	1	60,974	1:60,974
Lloydminster	0	10,042	—
Medicine Hat	0	43,625	—
Red Deer	0	58,134	—
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	0	5,132	—
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	1	6,717	1:6,717
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	1	547,756	1:547,756
Provincial Total	32	2,545,553	1:79,548

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1C
Geographic Distribution of Practising Speech Pathologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
1 (Medicine Hat)	12	58,179	1:4,848
2 (Lethbridge)	22	119,110	1:5,414
3 (Pincher Creek)	2	36,149	1:18,075
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	5	39,658	1:7,932
6 (Calgary excluding CMA)	7	50,769	1:7,253
7 (Stettler)	4	39,694	1:9,924
8 (Red Deer)	20	124,098	1:6,205
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	12	78,483	1:6,540
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	5	43,277	1:8,655
13 (Whitecourt)	3	57,521	1:19,174
14 (Hinton)	3	25,784	1:8,595
15 (Banff)	1	26,539	1:26,539
16 (Fort McMurray)	4	49,490	1:12,373
17 (High Level)	2	48,962	1:24,481
18 (Grande Cache)	2	13,979	1:6,990
19 (Grande Prairie)	13	74,855	1:5,758
Census Metropolitan Area (CMA) of Calgary	101	754,033	1:7,466
Census Metropolitan Area (CMA) of Edmonton	146	839,924	1:5,753
Provincial Total	370	2,545,553	1:6,880

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1D
Community Breakdown of Practising Speech Pathologists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	101	754,033	1:7,466
Census Metropolitan Area (CMA) of Edmonton	146	839,924	1:5,753
10,000 to 69,999			
Camrose	3	13,420	1:4,473
Fort McMurray	3	34,706	1:11,569
Grande Prairie	8	28,271	1:3,534
Lethbridge	12	60,974	1:5,081
Lloydminster	3	10,042	1:3,347
Medicine Hat	12	43,625	1:3,635
Red Deer	12	58,134	1:4,845
Wetaskiwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	2	5,132	1:2,566
Brooks	4	9,433	1:2,358
Canmore	0	5,681	—
Coaldale	3	5,310	1:1,770
Crowsnest Pass	0	6,769	—
Drumheller	3	6,277	1:2,092
Edson	2	7,323	1:3,662
High River	3	6,269	1:2,090
Hinton	1	9,046	1:9,046
Innisfail	1	5,700	1:5,700
Lacombe	2	6,934	1:3,467
Okotoks	2	6,720	1:3,360
Olds	0	5,542	—
Peace River	2	6,717	1:3,359
Ponoka	4	5,861	1:1,465
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	2	4,881	1:2,441
Stettler	3	4,947	1:1,649
Taber	1	6,660	1:6,660
Vegreville	3	5,138	1:1,713
Whitecourt	1	6,938	1:6,938
Under 4,800	26	547,756	1:21,068
Provincial Total	370	2,545,553	1:6,880

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Audiologists and Speech Pathologists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	353	354	370
% Change in Number of Practising Personnel	6.3%	0.3%	4.5%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:6,864	1:6,982	1:6,880

IV Educational Programs

There is a four-year baccalaureate degree in speech pathology offered at the University of Alberta. The program produced 35 graduates in 1990-91. This program includes courses in speech pathology and audiology. However, graduates from the program only qualify as speech pathologists. Audiologists require training at the graduate level.

A master's program in speech pathology was introduced in 1986-87 at the University of Alberta. There were two graduates from this program in the 1990-91 academic year.

Table 3
Educational Programs for Audiologists and Speech Pathologists in Alberta³

	1988-89	1989-90	1990-91
A. Baccalaureate Program			
University of Alberta			
Bachelor of Science in Speech Pathology			
(Program Length: 4 years)			
Enrolments:			
1st Year		Pre Professional Year	
2nd Year	37	36	37
3rd Year	36	38	36
4th Year	30	32	39
Graduates:	32	28	35
B. Master's Program			
University of Alberta			
Master of Science in Speech Pathology			
(Program Length: 2 years plus thesis)			
Enrolments:			
1st Year	8	3	4
2nd Year	0	12	12
Graduates:	0	3	2

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Biomedical Engineers

I. Overview

Definition: Biomedical engineering involves the application of engineering principles to living systems. It can involve the adaptation of equipment used in conjunction with living organisms (usually human beings), include life systems modelling and simulation, and involve the design and development of medical devices and equipment for underwater and space missions.¹

(Source: "Careers in Biomedical Engineering and Technology in Canada," Canadian Medical and Biological Engineering Society, Ottawa, Ontario.)

There were 17 biomedical engineers who resided in Alberta and registered with the Canadian Medical and Biological Engineering Society in 1991.² Biomedical engineers located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 94 percent of the total. The provincial biomedical engineer-to-population ratio was 1:149,738 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Certification is not mandatory but may be obtained from:
The Canadian Board of Examiners for
Clinical Engineering Certification
C.M.B.E.S. Secretariat
c/o National Research Council
Room 302, Building M-50
Ottawa, Ontario
K1A 0R8

b) Professional Association:

Canadian Medical and Biological Engineering Society
c/o National Research Council
Room 307, Building M-50
Ottawa, Ontario
K1A 0R8
President: Dr. Robert Kearney

c) Legislation:

There is no legislation regulating biomedical engineers in Alberta at present.

¹ The term, "biomedical engineer," is often used much more loosely to cover physicists, computing scientists, and other specialists and technicians, working in the biomedical field, many of whom are not qualified as engineers. In this chapter, this broader interpretation is used.

² Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31, 1991.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Biomedical Engineers, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	1	58,179	1:58,179
2 (Lethbridge)	0	119,110	—
3 (Pincher Creek)	0	36,149	—
4 (Hanna)	0	11,947	—
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	0	124,098	—
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	0	78,483	—
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	0	43,277	—
13 (Whitecourt)	0	57,521	—
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	0	49,490	—
17 (High Level)	0	48,962	—
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	0	74,855	—
Census Metropolitan Area (CMA) of Calgary	5	754,033	1:150,807
Census Metropolitan Area (CMA) of Edmonton	11	839,924	1:76,357
Provincial Total	17	2,545,553	1:149,738

¹ Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Biomedical Engineers, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	5	754,033	1:150,807
Census Metropolitan Area (CMA) of Edmonton	11	839,924	1:76,357
10,000 to 69,999			
Camrose	0	13,420	—
Fort McMurray	0	34,706	—
Grande Prairie	0	28,271	—
Lethbridge	0	60,974	—
Lloydminster	0	10,042	—
Medicine Hat	1	43,625	1:43,625
Red Deer	0	58,134	—
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	0	5,132	—
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	0	547,756	—
Provincial Total	17	2,545,553	1:149,738

¹ Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Biomedical Engineers
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	16	16	17
% Change in Number of Registered Personnel	-5.9%	0.0%	6.2%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio:			
— Alberta	1:151,438	1:154,475	1:149,738
— Western Canada ³	1:112,340	1:92,569	—

IV. Educational Programs

The Department of Applied Sciences in Medicine at the University of Alberta offers graduate programs for physicists, engineers, computing scientists and other specialists. In addition, master's and doctoral degree programs are available to students registered in the engineering or science faculties but carrying out their research in the Faculty of Medicine.

Table 3
Educational Programs for Biomedical Engineers in Alberta⁴

	1988-89	1989-90	1990-91 ⁵
A. Master's Programs			
University of Alberta			
Master's of Science or Engineering			
offered by the Faculty of Engineering and			
the Department of Applied Science in Medicine			
(Program Length: variable)			
Enrolments:	7	17	N/A
Graduates:	2	4	N/A
B. Doctoral Program			
University of Alberta			
(Program Length: variable)			
Enrolments:	9	8	N/A
Graduates:	1	2	N/A

¹ Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31 of the indicated year.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined. Health and Welfare Canada, July 1992.

⁴ Source: Department of Mechanical Engineering, University of Alberta, Edmonton, July 1991.

⁵ Data on the number of students enrolled and graduates from the University of Alberta is not included due to unavailability.

Child and Youth Care Workers

I. Overview

Definition: Provide care and counselling to children, youth and their families. The child or youth with emotional and/or behavioural problems is often the main focus of attention. The worker establishes a relationship with the child or youth and engages him in activities planned to teach competence and responsibility. Child and youth care includes the following tasks: shape the child or youth's environment to support his development of skills; manage a child or youth's maladaptive behaviour; mediate between children, youth and their families as appropriate; assess and communicate the progress of children and youth; provide individual and group activities in a living or community setting; teach living skills and independent skills. Settings include the family home, school, residential facilities, group homes, hospitals, foster homes and community environments.

(Source: Alberta Family and Social Services)

Since registration with the Child and Youth Care Association of Alberta is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 1,861¹ child and youth care workers practising in Alberta in 1991.² Those employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 67 percent of the total. The provincial child care worker-to-population ratio was 1:1,368 in 1991. Since child care workers primarily work with children and adolescents, the adjusted provincial child care worker-to-population (5-17 years) ratio was 1:231 in 1991.³

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Child and Youth Care Association of Alberta
6920 - 128 Avenue
Edmonton, Alberta
T5C 1S7
President: Ms. Joanne Blinco

c) Legislation:

There is no legislation regulating child and youth care workers in Alberta at present.

¹ Included in the total (1,861) were hospital child care workers (21) and houseparents (168) which were excluded in years prior to 1989.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

³ Source: (5-17) year old population in Alberta, 1991 Census, Statistics Canada.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Child and Youth Care Workers, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	28	58,179	1:2,078
2 (Lethbridge)	114	119,110	1:1,045
3 (Pincher Creek)	13	36,149	1:2,781
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	6	39,658	1:6,610
6 (Calgary excluding CMA)	26	50,769	1:1,953
7 (Stettler)	9	39,694	1:4,410
8 (Red Deer)	80	124,098	1:1,551
9 (Rocky Mountain House)	5	16,734	1:3,347
10 (Camrose)	14	78,483	1:5,606
11 (Edmonton excluding CMA)	12	36,368	1:3,031
12 (Bonnyville)	99	43,277	1:437
13 (Whitecourt)	3	57,521	1:19,174
14 (Hinton)	3	25,784	1:8,595
15 (Banff)	7	26,539	1:3,791
16 (Fort McMurray)	51	49,490	1:970
17 (High Level)	73	48,962	1:671
18 (Grande Cache)	4	13,979	1:3,495
19 (Grande Prairie)	67	74,855	1:1,117
Census Metropolitan Area (CMA) of Calgary	699	754,033	1:1,079
Census Metropolitan Area (CMA) of Edmonton	546	839,924	1:1,538
Provincial Total	1,861	2,545,553	1:1,368

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Child and Youth Care Workers, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	699	754,033	1:1,079
Census Metropolitan Area (CMA) of Edmonton	546	839,924	1:1,538
10,000 to 69,999			
Camrose	4	13,420	1:3,355
Fort McMurray	30	34,706	1:1,157
Grande Prairie	26	28,271	1:1,087
Lethbridge	87	60,974	1:701
Lloydminster	0	10,042	—
Medicine Hat	28	43,625	1:1,558
Red Deer	60	58,134	1:969
Wetaskiwin	12	10,634	1:886
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	3	5,132	1:1,711
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	13	6,269	1:482
Hinton	3	9,046	1:3,015
Innisfail	3	5,700	1:1,900
Lacombe	6	6,934	1:1,156
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	5	5,461	1:1,092
Slave Lake	15	5,607	1:374
St. Paul	9	4,881	1:542
Stettler	0	4,947	—
Taber	1	6,660	1:6,660
Vegreville	0	5,138	—
Whitecourt	1	6,938	1:6,938
Under 4,800	310	547,756	1:1,767
Provincial Total	1,861	2,545,553	1:1,368

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Child and Youth Care Workers
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	1,825	1,795	1,861
% Change in Number of Practising Personnel	N/A	-1.6%	3.7%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,328	1:1,377	1:1,368

IV. Educational Programs

Grant MacEwan Community College, Lethbridge Community College, and Mount Royal College each offer a two-year child and youth care worker diploma program. The three programs produced 81 graduates in 1990-91.

Table 3
Educational Programs for Child and Youth Care Workers in Alberta³

	1988-89	1989-90	1990-91
Child and Youth Care Worker Diploma			
Grant MacEwan Community College (Program Length: 2 years)			
Enrolments:			
1st Year	57	50	52
2nd Year	37	39	48
Graduates:	30	33	44
Lethbridge Community College (Program Length: 2 years)			
Enrolments:			
1st Year	32	32	32
2nd Year	18	22	19
Graduates:	12	22	15
Mount Royal College (Program Length: 2 years)			
Enrolments:			
1st Year	47	59	66
2nd Year	57	52	36
Graduates:	39	39	22
Provincial Total			
Number of Training Programs: 3			
Graduates:	81	94	81

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Chiropractors

I. Overview

Definition: A chiropractor practises within the branch of the healing arts concerned with the restoration and maintenance of human health by the chiropractic adjustment or manipulation of the spinal column and other articulations of the body and includes the use of x-ray and other analytical instruments, therapies and diagnostic procedures.

(Source: The Chiropractic Profession Act, S.A. 1984, Ch. C9.1)

There were 390 chiropractors who registered with the College of Chiropractors of Alberta (CCOA) in 1991. Of these, 376 were active members residing in Alberta, one was practising in another jurisdiction and 14 were nonpracticing.¹ Sixty-two percent of active chiropractors in Alberta were located in the Census Metropolitan Areas of Calgary and Edmonton. The provincial chiropractor-to-population ratio was 1:6,770 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

College of Chiropractors of Alberta
516, 10235 - 101 Street
Edmonton, Alberta
T5J 3G1

Registrar: Dr. R. G. Graham
President: Dr. Richard Gehrke

b) Legislation:

Under the authority of the Chiropractic Profession Act, all individuals who wish to practise as chiropractors must register on an annual basis with the College of Chiropractors of Alberta (CCOA).

The CCOA is responsible for registration, maintaining professional discipline and practice review. The Universities Coordinating Council has the authority to approve faculties of chiropractic and determine equivalencies for registration purposes.

¹ Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA as of December 31, 1991. Excludes inactive, honorary and retired members.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Chiropractors, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	12	58,179	1:4,848
2 (Lethbridge)	29	119,110	1:4,107
3 (Pincher Creek)	6	36,149	1:6,025
4 (Hanna)	1	11,947	1:11,947
5 (Drumheller)	6	39,658	1:6,610
6 (Calgary excluding CMA)	7	50,769	1:7,253
7 (Stettler)	5	39,694	1:7,939
8 (Red Deer)	27	124,098	1:4,596
9 (Rocky Mountain House)	4	16,734	1:4,184
10 (Camrose)	14	78,483	1:5,606
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	4	43,277	1:10,819
13 (Whitecourt)	7	57,521	1:8,217
14 (Hinton)	4	25,784	1:6,446
15 (Banff)	2	26,539	1:13,270
16 (Fort McMurray)	2	49,490	1:24,745
17 (High Level)	2	48,962	1:24,481
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	8	74,855	1:9,357
Census Metropolitan Area (CMA) of Calgary	127	754,033	1:5,937
Census Metropolitan Area (CMA) of Edmonton	105	839,924	1:7,999
Provincial Total	376	2,545,553	1:6,770

¹ Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA as of December 31, 1991. Excludes inactive, honorary and retired members.

² Source: 1991 Census, Statistics Canada.

TABLE 1B
Community Breakdown of Registered Chiropractors, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	127	754,033	1:5,937
Census Metropolitan Area (CMA) of Edmonton	105	839,924	1:7,999
10,000 to 69,999			
Camrose	5	13,420	1:2,684
Fort McMurray	2	34,706	1:17,353
Grande Prairie	5	28,271	1:5,654
Lethbridge	19	60,974	1:3,209
Lloydminster	4	10,042	1:2,511
Medicine Hat	12	43,625	1:3,635
Red Deer	17	58,134	1:3,420
Wetaskiwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	1	5,132	1:5,132
Brooks	4	9,433	1:2,358
Canmore	1	5,681	1:5,681
Coaldale	2	5,310	1:2,655
Crowsnest Pass	0	6,769	—
Drumheller	2	6,277	1:3,139
Edson	2	7,323	1:3,662
High River	2	6,269	1:3,135
Hinton	2	9,046	1:4,523
Innisfail	3	5,700	1:1,900
Lacombe	2	6,934	1:3,467
Okotoks	1	6,720	1:6,720
Olds	2	5,542	1:2,771
Peace River	2	6,717	1:3,359
Ponoka	2	5,861	1:2,931
Rocky Mountain House	4	5,461	1:1,365
Slave Lake	1	5,607	1:5,607
St. Paul	2	4,881	1:2,441
Stettler	3	4,947	1:1,649
Taber	3	6,660	1:2,220
Vegreville	3	5,138	1:1,713
Whitecourt	2	6,938	1:3,469
Under 4,800	30	547,756	1:18,259
Provincial Total	376	2,545,553	1:6,770

¹ Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA and residing in Alberta as of December 31, 1991. Excludes inactive, honorary and retired members.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Chiropractors in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	347	360	376
% Change in Number of Registered Personnel	5.8%	3.6%	4.4%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:6,983	1:6,866	1:6,770

IV. Educational Programs

In Canada, chiropractic training can be obtained at the Canadian Memorial Chiropractic College in Toronto which offers a four-year program. Many of Alberta's chiropractors received their chiropractic training in the United States.

¹ Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA and residing in Alberta as of December 31 of the year indicated. Excludes inactive, honorary, and retired members.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Combined Laboratory and X-Ray Technicians

I. Overview

Definition: The combined technician is a hospital worker trained to perform laboratory and x-ray work in smaller hospitals that do not have sufficient volume or range of work to warrant employing both a laboratory technologist and an x-ray technician.

(Source: **Saskatchewan Health Manpower Annual Report 1976**. Regina, Saskatchewan: Saskatchewan Health, 1976)

There were 346 combined laboratory and x-ray technicians who resided in Alberta and registered with the Combined Laboratory and X-ray Technicians Committee in 1991.¹ According to a survey of health and social service personnel working in Alberta, 41 percent of combined laboratory and x-ray technicians worked in acute care hospitals having less than 300 beds. Another 38 percent were employed in medical laboratories and radiological facilities.² Approximately 30 percent were employed in the Census Metropolitan Areas of Calgary and Edmonton even though in urban centres, medical laboratory and radiation services are usually provided by medical laboratory technologists and medical radiation technologists (see chapters on Medical Laboratory Technologists and Medical Radiation Technologists). The provincial personnel-to-population ratio was 1:7,357 in 1991.

¹ Source: The Combined Laboratory and X-ray Technicians Committee Alberta Professions and Occupations Bureau. Number of combined laboratory and x-ray technicians registered with the committee and residing in Alberta as of December 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Combined Laboratory and X-Ray Technicians Committee
c/o Professions and Occupations Bureau
5th Floor, 10011 - 109 Street
Edmonton, Alberta
T5J 3S8

Chairman: Ms. Donna Reed

b) Professional Association:

Alberta Association of Combined
Laboratory and X-Ray Technicians
c/o 370 Terrace Plaza
4445 Calgary Trail South
Edmonton, Alberta
T6H 4R7

President: Ms. Daura Douville

c) Legislation:

Regulations under the Health Disciplines Act for combined laboratory and x-ray technicians became effective January 1, 1989. These regulations set out the educational and/or employment requirements for registration under the Act. In addition, the types of service and conditions of practice are specified in regulation. The Combined Laboratory and X-Ray Technicians Committee and the Health Disciplines Board are responsible for registration and discipline of practitioners. The titles "combined laboratory x-ray technician" or "certified combined technician" and the initials "CLXT" are reserved by regulation for registered members.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Combined Laboratory and X-Ray Technicians,
Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	5	58,179	1:11,636
2 (Lethbridge)	18	119,110	1:6,617
3 (Pincher Creek)	6	36,149	1:6,025
4 (Hanna)	11	11,947	1:1,086
5 (Drumheller)	9	39,658	1:4,406
6 (Calgary excluding CMA)	21	50,769	1:2,418
7 (Stettler)	21	39,694	1:1,890
8 (Red Deer)	30	124,098	1:4,137
9 (Rocky Mountain House)	7	16,734	1:2,391
10 (Camrose)	31	78,483	1:2,532
11 (Edmonton excluding CMA)	1	36,368	1:36,368
12 (Bonnyville)	19	43,277	1:2,278
13 (Whitecourt)	19	57,521	1:3,027
14 (Hinton)	5	25,784	1:5,157
15 (Banff)	5	26,539	1:5,308
16 (Fort McMurray)	4	49,490	1:12,373
17 (High Level)	16	48,962	1:3,060
18 (Grande Cache)	3	13,979	1:4,660
19 (Grande Prairie)	12	74,855	1:6,238
Census Metropolitan Area (CMA) of Calgary	19	754,033	1:39,686
Census Metropolitan Area (CMA) of Edmonton	84	839,924	1:9,999
Provincial Total	346	2,545,553	1:7,357

¹ Source: The Combined Laboratory and X-ray Technicians Committee. Alberta Professions and Occupations Bureau. Number of combined laboratory and x-ray technicians registered with the committee and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Combined Laboratory and X-Ray Technicians, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	19	754,033	1:39,686
Census Metropolitan Area (CMA) of Edmonton	84	839,924	1:9,999
10,000 to 69,999			
Camrose	2	13,420	1:6,710
Fort McMurray	2	34,706	1:17,353
Grande Prairie	1	28,271	1:28,271
Lethbridge	3	60,974	1:20,325
Lloydminster	2	10,042	1:5,021
Medicine Hat	0	43,625	—
Red Deer	6	58,134	1:9,689
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	4	5,132	1:1,283
Brooks	0	9,433	—
Canmore	3	5,681	1:1,894
Coaldale	3	5,310	1:1,770
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	3	7,323	1:2,441
High River	1	6,269	1:6,269
Hinton	2	9,046	1:4,523
Innisfail	3	5,700	1:1,900
Lacombe	2	6,934	1:3,467
Okotoks	2	6,720	1:3,360
Olds	4	5,542	1:1,386
Peace River	1	6,717	1:6,717
Ponoka	7	5,861	1:837
Rocky Mountain House	5	5,461	1:1,092
Slave Lake	2	5,607	1:2,804
St. Paul	1	4,881	1:4,881
Stettler	1	4,947	1:4,947
Taber	1	6,660	1:6,660
Vegreville	1	5,138	1:5,138
Whitecourt	1	6,938	1:6,938
Under 4,800	180	547,756	1:3,043
Provincial Total	346	2,545,553	1:7,357

¹ Source: The Combined Laboratory and X-ray Technicians Committee, Alberta Professions and Occupations Bureau. Number of combined laboratory and x-ray technicians registered with the committee and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Combined Laboratory and X-Ray Technicians
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel	366 ¹	366 ¹	346 ²
% Change in Number of Practising Personnel	19.6%	0.0%	N/A
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:6,620	1:6,753	1:7,357

IV. Educational Programs

The Northern Alberta Institute of Technology offers a one-year combined laboratory and x-ray technology certificate program. The program produced 14 graduates in 1990-91.

Table 3
Educational Program for Combined Laboratory and X-Ray Technicians in Alberta⁴

	1988-89	1989-90	1990-91
Certificate in Combined Laboratory and X-Ray Technology			
Northern Alberta Institute of Technology (Program Length: 1 year + 6 months practicum)			
Enrolments:	16	22	22
Graduates:	14	15	14

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: The Combined Laboratory and X-ray Technicians Committee, Alberta Professions and Occupations Bureau. Number of combined laboratory and x-ray technicians registered with the committee and residing in Alberta as of December 31, 1991.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Community Health Representatives

I. Overview

Definition: Provide health education and advice primarily to native communities.

(Source: Employer Survey Questionnaire: Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta).

As of October 31, 1991 there were 63 registered members with the Community Health Representative Association.¹ Since registration with the association is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

According to the survey, 163 community health representatives were practising in the province in 1991.² Community health representatives in the Census Metropolitan Areas of Calgary and Edmonton accounted for only 8 percent of the total. The provincial personnel-to-population ratio was 1:15,617 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Community Health Representative Association of Alberta
c/o Alberta Indian Health Care Commission
1390 First Edmonton Place
10665 Jasper Avenue
Edmonton, Alberta
T5A 3S5

President: Ms. Florence Willier

c) Legislation:

None.

¹ Source: Community Health Representative Association of Alberta. Number of community health representatives registered with the Association and residing in Alberta as of October 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 – conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Community Health Representatives, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	0	58,179	—
2 (Lethbridge)	0	119,110	—
3 (Pincher Creek)	5	36,149	1:7,230
4 (Hanna)	0	11,947	—
5 (Drumheller)	4	39,658	1:9,915
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	6	124,098	1:20,683
9 (Rocky Mountain House)	9	16,734	1:1,859
10 (Camrose)	5	78,483	1:15,697
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	29	43,277	1:1,492
13 (Whitecourt)	4	57,521	1:14,380
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	34	49,490	1:1,456
17 (High Level)	39	48,962	1:1,255
18 (Grande Cache)	4	13,979	1:3,495
19 (Grande Prairie)	8	74,855	1:9,357
Census Metropolitan Area (CMA) of Calgary	8	754,033	1:94,254
Census Metropolitan Area (CMA) of Edmonton	5	839,924	1:167,985
Provincial Total	163	2,545,553	1:15,617

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 – conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Community Health Representatives, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	8	754,033	1:94,254
Census Metropolitan Area (CMA) of Edmonton	5	839,924	1:167,985
10,000 to 69,999			
Camrose	0	13,420	—
Fort McMurray	5	34,706	1:6,941
Grande Prairie	0	28,271	—
Lethbridge	0	60,974	—
Lloydminster	0	10,042	—
Medicine Hat	0	43,625	—
Red Deer	0	58,134	—
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	5	5,132	1:1,026
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	3	6,717	1:2,239
Ponoka	0	5,861	—
Rocky Mountain House	9	5,461	1:607
Slave Lake	0	5,607	—
St. Paul	1	4,881	1:4,881
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	127	547,756	1:4,313
Provincial Total	163	2,545,553	1:15,617

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Community Health Representatives
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	125	131	163
% Change in Number of Practising Personnel	N/A	4.8%	24.4%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:19,384	1:18,867	1:15,617

IV. Educational Programs

The Alberta Vocational College in Lac La Biche offers a 30 week certificate program in community health work. The program produced eighteen graduates in 1990-91.

Table 3
Educational Program for Community Health Representatives in Alberta³

	1988-89	1989-90	1990-91
Community Health Representative Certificate			
Alberta Vocational College, Lac La Biche (Program Length: 30 weeks)			
Enrolments:	31	19	26
Graduates:	24	8	18

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Day Care Workers

I. Overview

Definition: Supervise rest periods, play activities, developmental exercises, feeding and hygiene of preschool children at a day care centre.

Greet children and help them to settle into the physical environment. Feed infants and supervise meals and snacks for older children. Diaper infants and direct/assist older children in the use of toilets and personal hygiene. Organize and supervise groups of children in activities such as games, storytelling, arts and crafts and playground exercises. Spend time with individual children, entering into conversation, encouraging self-expression, and promoting inquisitiveness and self-direction. Maintain positive attitude and consistent behaviour, and show loving care. In keeping with practices acceptable to recognized standards and parent's expectations, administer required medications, contact parents when child is ill, and guide a child's behaviour in a manner which preserves and enhances self-esteem and reinforces socially acceptable conduct. Supervise rest and naptimes. Report concerns about a child and a child's developmental progress to the parent and/or supervisor-in-charge. Attend meetings and workshops as required.

(Source: Alberta Family and Social Services)

The survey of health and social service personnel working in Alberta conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee was used as the source of workforce information.

The survey found that there were 6,262¹ day care workers practising in Alberta in 1991.² Day care workers employed in the Census Metropolitan areas of Calgary and Edmonton accounted for 78 percent of the total. The provincial day care worker-to-population ratio was 1:406 in 1991.

Since day care workers work with children, the adjusted provincial day care worker-to-population (0-5 years) ratio was 1:40 in 1991.³

II. Professional Association and Legislation Information

a) Licensing, Registration or Certification Authority:

None

b) Professional Association:

There is no one association which is recognized as representing all day care workers.

c) Legislation:

There is no legislation regulating day care workers in Alberta at present.

¹ Directors of day care centres are included in the total number of day care workers.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

³ Source: (0-5) year old population in Alberta, 1991 Census, Statistics Canada.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Day Care Workers, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	85	58,179	1:684
2 (Lethbridge)	231	119,110	1:516
3 (Pincher Creek)	42	36,149	1:861
4 (Hanna)	21	11,947	1:569
5 (Drumheller)	73	39,658	1:543
6 (Calgary Excluding Cma)	87	50,769	1:584
7 (Stettler)	35	39,694	1:1,134
8 (Red Deer)	196	124,098	1:633
9 (Rocky Mountain House)	26	16,734	1:644
10 (Camrose)	122	78,483	1:643
11 (Edmonton Excluding Cma)	42	36,368	1:866
12 (Bonnyville)	61	43,277	1:709
13 (Whitecourt)	39	57,521	1:1,475
14 (Hinton)	8	25,784	1:3,223
15 (Banff)	59	26,539	1:450
16 (Fort McMurray)	47	49,490	1:1,053
17 (High Level)	79	48,962	1:620
18 (Grande Cache)	24	13,979	1:582
19 (Grande Prairie)	99	74,855	1:756
Census Metropolitan Area (CMA) of Calgary	2,089	754,033	1:361
Census Metropolitan Area (CMA) of Edmonton	2,797	839,924	1:300
Provincial Total	6,262	2,545,553	1:406

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Day Care Workers, Alberta, 1991

Community By Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	2,089	754,033	1:361
Census Metropolitan Area (CMA) of Edmonton	2,797	839,924	1:300
10,000 to 69,999			
Camrose	41	13,420	1:327
Fort McMurray	37	34,706	1:938
Grande Prairie	51	28,271	1:554
Lethbridge	181	60,974	1:337
Lloydminster	30	10,042	1:335
Medicine Hat	68	43,625	1:642
Red Deer	127	58,134	1:458
Wetaskiwin	22	10,634	1:483
4,800 to 9,999			
Banff	37	5,688	1:154
Bonnyville	16	5,132	1:321
Brooks	20	9,433	1:472
Canmore	12	5,681	1:473
Coaldale	4	5,310	1:1,328
Crowsnest Pass	4	6,769	1:1,692
Drumheller	14	6,277	1:448
Edson	0	7,323	—
High River	30	6,269	1:209
Hinton	8	9,046	1:1,131
Innisfail	5	5,700	1:1,140
Lacombe	14	6,934	1:495
Okotoks	15	6,720	1:448
Olds	26	5,542	1:213
Peace River	16	6,717	1:420
Ponoka	6	5,861	1:977
Rocky Mountain House	26	5,461	1:210
Slave Lake	24	5,607	1:234
St. Paul	14	4,881	1:349
Stettler	11	4,947	1:450
Taber	14	6,660	1:476
Vegreville	10	5,138	1:514
Whitecourt	8	6,938	1:867
Under 4,800	485	547,756	1:1,129
Provincial Total	6,262	2,545,553	1:406

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Day Care Workers in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	6,221	6,570	6,262
% Change In Number of Practising Personnel	7.7%	5.6%	-4.7%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change In Population	1.4%	2.0%	3.0%
Personnel-To-Population Ratio: — Alberta	1:389	1:376	1:406

IV. Educational Programs

Training in early childhood development is offered in one-year certificate programs, two-year diploma programs and four-year baccalaureate programs.

Certificate programs are offered at Alberta Vocational College — Lac La Biche, Keyano College, Lakeland College, Lethbridge Community College, Medicine Hat College, Mount Royal College and Red Deer College. Diploma programs are offered at Grande Prairie Regional College, Grant MacEwan Community College, Mount Royal College, and Red Deer College. Baccalaureate-level training is available as a specialization in early childhood education through the Faculty of Education at the University of Alberta, the University of Calgary, and the University of Lethbridge.

In 1990-91, there were 144 certificate graduates and 139 diploma graduates from the various programs offered in the province. In the baccalaureate program the University of Calgary enrolled 115 students and granted degrees to 45 students³. Data on enrolments and graduates from the University of Alberta and the University of Lethbridge are presently unavailable.

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: *The University of Calgary Fact Book 1990-91* and *1991-92*, Office of Institutional Analysis. The University of Calgary.

Table 3
Educational Programs for Day Care Workers in Alberta¹

	1988-89	1989-90	1990-91
A. Certificate Programs in Early Childhood Development			
Alberta Vocational College — Lac La Biche (Program Length: 36 weeks)			
Enrolments:	9	13	12
Graduates:	4	10	6
Grande Prairie Regional College ² (Program Length: 1 year)			
Enrolments: ³	286	—	—
Graduates:	2	—	—
Keyano College (Program Length: 1 year)			
Enrolments:	57	65	48
Graduates:	13	12	18
Lakeland College (Program Length: 1 year)			
Enrolments: ⁴	28	25	24
Graduates:	26	17	24
Lethbridge Community College (Program Length: 1 year)			
Enrolments: ⁴	428	494	533
Graduates:	12	22	19
Medicine Hat College (Program Length: 1 year)			
Enrolments:	28	32	42
Graduates:	14	16	14
Mount Royal College (Program Length: 1 year)			
Enrolments: ³	137	151	179
Graduates:	30	39	26
Red Deer College (Program Length: 1 year)			
Enrolments: ³	124	189	179
Graduates:	54	38	37
Provincial Total			
Number of Certificate Programs: 7			
Graduates:	155	154	144

¹ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Certificate program is no longer offered.

³ Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

⁴ Enrolment figures include part-time registrations and may include enrolment data for distance education courses or evening classes.

Table 3 Continued
Educational Programs for Day Care Workers in Alberta¹

	1988-89	1989-90	1990-91
B. Diploma Programs In Early Childhood Development			
Grande Prairie Regional College (Program Length: 2 years)			
Enrolments:			
1st Year ²	286	194	201
2nd Year	58	95	100
Graduates:	17	23	16
Grant MacEwan Community College (Program Length: 2 years)			
Enrolments: ³			
1st Year	582	614	609
2nd Year	66	70	78
Graduates:	56	62	69
Mount Royal College (Program Length: 2 years)			
Enrolments:			
1st Year ²	137	151	179
2nd Year	42	39	50
Graduates:	32	33	35
Red Deer College (Program Length: 2 years)			
Enrolments:			
1st Year ²	124	189	179
2nd Year	56	37	37
Graduates:	28	21	19
Provincial Total			
Number of Diploma Programs: 4			
Graduates:	133	138	139

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

³ Enrolment figures may include part-time students and those in off-campus locations.

Dental Assistants

I. Overview

Definition: Assist dentists in care and treatment of patients. Seat and prepare patient for dental treatment. Arrange instruments, materials and medications and hand them to the dentist. Keep oral operating area clear during dental procedure by using suction devices, water sprays, cotton rolls and holders, and by retraction of cheek and tongue. Prepare filling materials, using mechanical amalgamator and instruments and supply them to dentist as required. Comfort patient through reassuring conversation and actions. Give emergency treatment, as directed by dentist, for local and systemic distress. Advise patients on post-operative care, oral hygiene, and importance of diet and preventive dentistry. Sterilize instruments using ovens, autoclaves and aseptic solutions. Pour, trim and mount plaster models from impressions taken by dentist and perform other dental laboratory procedures. Perform routine maintenance duties such as lubricating equipment, sharpening dental instruments, replacing expendable parts and cleaning equipment and treatment area. Expose, process and mount X-ray films. Polish teeth, apply fluoride to teeth and perform other intra-oral procedures, as permitted by training and by provincial legislation. Act as receptionist, if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

As of August 31, 1991 there were 2,587 registered and non-registered members of the Alberta Dental Assistants Association. Of these 2,382 were registered members.¹ Since registration is not mandatory to practise, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

According to the survey, 2,392 dental assistants were practising in the province in 1991.² Ninety-three percent of these individuals were employed in dentists' offices.³ Dental assistants employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 71 percent of the total. The provincial dental assistant-to-population ratio was 1:1,064 in 1991.

¹ Source: Alberta Dental Assistants Association. Number of dental assistants registered with the Association as of August 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

³ Ibid.

II. Professional Association and Legislation Information

a) Professional Association/Certification Body:

Alberta Dental Assistants Association
Suite #204, 10335-178 Street
Edmonton, Alberta
T5S 1R5

Executive Director/Registrar: Ms. Melanie Bachand
President: Ms. Moira Cookshaw
President Elect: Ms. Linda Shalagan

b) Legislation:

A new statute, the Dental Disciplines Act, was proclaimed November 1990. Dental assistants are now regulated under this Act. The Act reserves the title "registered dental assistant" alone or in combination with other words for those registered with the association.

The Alberta Dental Assistants Association is now responsible for registration, practice review, and discipline of its members. The Act grants the Universities Coordinating Council authority to approve educational programs and set the term of practical experience. It also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

The Act establishes the Dental Disciplines Advisory Committee consisting of three members of the public, a dentist, a dental hygienist, a dental assistant and a dental technician. This committee is to provide advice respecting regulations under the Act, and any other matter concerning dental health referred by the Minister. Regulations for dental assistants are expected to be approved in the fall of 1992.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Dental Assistants, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	41	58,179	1:1,419
2 (Lethbridge)	98	119,110	1:1,215
3 (Pincher Creek)	21	36,149	1:1,721
4 (Hanna)	9	11,947	1:1,327
5 (Drumheller)	25	39,658	1:1,586
6 (Calgary excluding CMA)	28	50,769	1:1,813
7 (Stettler)	18	39,694	1:2,205
8 (Red Deer)	113	124,098	1:1,098
9 (Rocky Mountain House)	11	16,734	1:1,521
10 (Camrose)	53	78,483	1:1,481
11 (Edmonton excluding CMA)	13	36,368	1:2,798
12 (Bonnyville)	58	43,277	1:746
13 (Whitecourt)	26	57,521	1:2,212
14 (Hinton)	17	25,784	1:1,517
15 (Banff)	28	26,539	1:948
16 (Fort McMurray)	29	49,490	1:1,707
17 (High Level)	17	48,962	1:2,880
18 (Grande Cache)	19	13,979	1:736
19 (Grande Prairie)	58	74,855	1:1,291
Census Metropolitan Area (CMA) of Calgary	746	754,033	1:1,011
Census Metropolitan Area (CMA) of Edmonton	964	839,924	1:871
Provincial Total	2,392	2,545,553	1:1,064

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Dental Assistants, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	746	754,033	1:1,011
Census Metropolitan Area (CMA) of Edmonton	964	839,924	1:871
10,000 to 69,999			
Camrose	20	13,420	1:671
Fort McMurray	27	34,706	1:1,285
Grande Prairie	34	28,271	1:832
Lethbridge	70	60,974	1:871
Lloydminster	11	10,042	1:913
Medicine Hat	41	43,625	1:1,064
Red Deer	86	58,134	1:676
Wetaskiwin	12	10,634	1:886
4,800 to 9,999			
Banff	10	5,688	1:569
Bonnyville	9	5,132	1:570
Brooks	9	9,433	1:1,048
Canmore	5	5,681	1:1,136
Coaldale	7	5,310	1:759
Crowsnest Pass	9	6,769	1:752
Drumheller	10	6,277	1:628
Edson	8	7,323	1:915
High River	7	6,269	1:896
Hinton	9	9,046	1:1,005
Innisfail	7	5,700	1:814
Lacombe	7	6,934	1:991
Okotoks	6	6,720	1:1,120
Olds	8	5,542	1:693
Peace River	14	6,717	1:480
Ponoka	9	5,861	1:651
Rocky Mountain House	11	5,461	1:496
Slave Lake	9	5,607	1:623
St. Paul	13	4,881	1:375
Stettler	9	4,947	1:550
Taber	3	6,660	1:2,220
Vegreville	9	5,138	1:571
Whitecourt	0	6,938	—
Under 4,800	193	547,756	1:2,838
Provincial Total	2,392	2,545,553	1:1,064

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Dental Assistants in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	2,168	2,318	2,392
% Change in Number of Practising Personnel	3.7%	6.9%	3.2%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,118	1:1,066	1:1,064

IV. Educational Programs

Both the Southern Alberta Institute of Technology and the Northern Alberta Institute of Technology offer dental assisting certificate programs. The two programs produced 112 graduates in 1990-91. In addition, the Northern Alberta Institute of Technology offers a correspondence training program. This program, which is 24 months in length and is designed for dental assistants presently employed, had 153 students and 45 graduates in 1990-91.

Table 3
Educational Programs for Dental Assistants in Alberta³

	1988-89	1989-90	1990-91
Dental Assisting Certificate			
Northern Alberta Institute of Technology (Program Length: 41 weeks)			
Enrolments:	74	73	73
Graduates:	68	71	67
Correspondence Program (Program Length: 24 months)			
Enrolments:	116	142	153
Graduates:	52	44	45
Southern Alberta Institute of Technology (Program Length: 39 weeks)			
Enrolments:	48	48	47
Graduates:	39	45	45
Provincial Total			
Number of Training Programs: 3			
Graduates:	159	160	157

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Dental Hygienists

I. Overview

Definition: Provide preventive dental services and instruct patients in care of teeth and mouth. Scale and polish teeth to remove hard and soft deposits, using dental instruments and equipment. Polish fillings to remove tarnish and corrosion, using motorized apparatus. Apply topical agents and sealants to teeth to reduce decay. Conduct preliminary dental examination and record case history of patient. Record observed conditions and information for diagnosis and treatment planning by dentist. Instruct individuals and groups in home dental care and provide dietary counselling related to dental health. Expose, process and mount dental x-ray films. Take impressions of teeth for study models. Administer local anaesthetics, place, finish and polish fillings, and remove sutures as permitted by training and by provincial legislation.¹

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980).

As of October 31, 1991 there were 739 active dental hygienists registered with the Alberta Dental Hygienists' Association.² Eighty-nine percent of these individuals were employed in dentists' offices and eight percent were employed in health units.³ Dental hygienists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 75 percent of the total. The provincial dental hygienist-to-population ratio was 1:3,444 in 1991.

¹ Alberta legislation does not permit dental hygienists to engage in activities described in the last sentence.

² Source: Alberta Dental Hygienists' Association. Number of dental hygienists registered with the ADHA and residing in Alberta as of October 31, 1991.

³ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 – conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Dental Hygienists' Association
9720 - 45 Avenue
Edmonton, Alberta
T6E 5C5

Registrar: Ms. Brenda Walker
President: Ms. Judy Clarke

b) Legislation:

A new statute, the Dental Disciplines Act, was proclaimed November 1990. Dental hygienists are now regulated under this Act. The Act reserves the titles "dental hygienists" and "registered dental hygienists" alone or in combination with other words for those registered with the association.

The Alberta Dental Hygienists Association is now responsible for registration, practice review, and discipline of its members. The Act grants the Universities Coordinating Council the authority to approve educational programs and set the term of practical experience. It also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

The Act establishes the Dental Disciplines Advisory Committee consisting of three members of the public, a dentist, a dental hygienist, a dental assistant and a dental technician. This committee is to provide advice respecting regulations under the Act, and any other matter concerning dental health referred by the Minister. Regulations are currently being developed by each of the groups.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Dental Hygienists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	13	58,179	1:4,475
2 (Lethbridge)	22	119,110	1:5,414
3 (Pincher Creek)	4	36,149	1:9,037
4 (Hanna)	4	11,947	1:2,987
5 (Drumheller)	4	39,658	1:9,915
6 (Calgary excluding CMA)	16	50,769	1:3,173
7 (Stettler)	6	39,694	1:6,616
8 (Red Deer)	40	124,098	1:3,102
9 (Rocky Mountain House)	3	16,734	1:5,578
10 (Camrose)	13	78,483	1:6,037
11 (Edmonton excluding CMA)	4	36,368	1:9,092
12 (Bonnyville)	8	43,277	1:5,410
13 (Whitecourt)	6	57,521	1:9,587
14 (Hinton)	6	25,784	1:4,297
15 (Banff)	6	26,539	1:4,423
16 (Fort McMurray)	9	49,490	1:5,499
17 (High Level)	1	48,962	1:48,962
18 (Grande Cache)	2	13,979	1:6,990
19 (Grande Prairie)	14	74,855	1:5,347
Census Metropolitan Area (CMA) of Calgary	283	754,033	1:2,664
Census Metropolitan Area (CMA) of Edmonton	271	839,924	1:3,099
Location Unknown	4	—	—
Provincial Total	739	2,545,553	1:3,444

¹ Source: Alberta Dental Hygienists' Association. Number of dental hygienists registered with the ADHA and residing in Alberta as of October 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Dental Hygienists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	283	754,033	1:2,664
Census Metropolitan Area (CMA) of Edmonton	271	839,924	1:3,099
10,000 to 69,999			
Camrose	4	13,420	1:3,355
Fort McMurray	8	34,706	1:4,338
Grande Prairie	6	28,271	1:4,712
Lethbridge	13	60,974	1:4,690
Lloydminster	1	10,042	1:10,042
Medicine Hat	12	43,625	1:3,635
Red Deer	25	58,134	1:2,325
Wetaskiwin	4	10,634	1:2,659
4,800 to 9,999			
Banff	2	5,688	1:2,844
Bonnyville	3	5,132	1:1,711
Brooks	2	9,433	1:4,717
Canmore	4	5,681	1:1,420
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	3	6,277	1:2,092
Edson	2	7,323	1:3,662
High River	3	6,269	1:2,090
Hinton	4	9,046	1:2,262
Innisfail	2	5,700	1:2,850
Lacombe	1	6,934	1:6,934
Okotoks	4	6,720	1:1,680
Olds	1	5,542	1:5,542
Peace River	4	6,717	1:1,679
Ponoka	5	5,861	1:1,172
Rocky Mountain House	2	5,461	1:2,731
Slave Lake	0	5,607	—
St. Paul	1	4,881	1:4,881
Stettler	4	4,947	1:1,237
Taber	1	6,660	1:6,660
Vegreville	2	5,138	1:2,569
Whitecourt	0	6,938	—
Under 4,800	58	547,756	1:9,444
Location Unknown	4	—	—
Provincial Total	739	2,545,553	1:3,444

¹ Source: Alberta Dental Hygienists' Association. Number of dental hygienists registered with the ADHA and residing in Alberta as of October 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Dental Hygienists in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel	737 ¹	780 ¹	739 ²
% Change in Number of Practising Personnel	3.9%	5.8%	N/A
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:3,288	1:3,169	1:3,444

IV. Educational Programs

The University of Alberta offers a two-year dental hygiene diploma program. The program produced 42 graduates in 1990-91.

Table 3
Educational Program for Dental Hygienists in Alberta⁴

	1988-89	1989-90	1990-91
Dental Hygiene Diploma			
University of Alberta			
(Program Length: 2 years)			
Enrolments:			
1st Year	43	42	43
2nd Year	36	38	42
Graduates:	36	38	42

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Alberta Dental Hygienists' Association. Number of dental hygienists registered with the ADHA and residing in Alberta as of October 31, 1991.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Dental Technicians

I. Overview

Definition: Make and repair dentures and other dental devices. Fabricate full and partial dentures, using wax and plaster models, dental surveyors, articulators (fitting devices) and electric grinders and polishers. Shape metal, vulcanite or plastic plates for dentures. Mount porcelain or plastic teeth in plates using knowledge of size, shape, shade and colour. Finish dentures on grinding and buffing wheels. Construct metal clasps, inlays, bridgework and other aides according to specifications. Join breaks, make additions or reline denture bases to repair dentures.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980).

There were 169 dental technicians who resided in Alberta and registered with the Alberta Association of Dental Technicians in 1991.¹ Dental technicians located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 88 percent of the total. Dentists in rural areas of the province contract some of their dental laboratory work to dental technicians in the major cities.

The provincial dental technician-to-population ratio was 1:15,062 in 1991. Some of the services performed by dental technicians, such as the making of complete dentures, can also be provided by denturists (see chapter on Denturists).

¹ Source: Alberta Association of Dental Technicians. Number of dental technicians registered with the AADT and residing in Alberta as of December 31, 1991.

II. Professional Association and Legislation Information

a) Professional Association/Licensing Body:

Alberta Association of Dental Technicians
Suite 300, Centre 104
5241 Calgary Trail
Edmonton, Alberta
T6H 5G8

Registrar: Mr. Garry Fransen
Council Chairman: Mr. Thomas Sekersky

b) Legislation:

Until recently, dental technicians were registered with the Dental Technicians Board, a provincial government licensing body established under the Dental Technicians Act. This Act was repealed upon proclamation of the Dental Disciplines Act on November 1, 1990. Dental technicians are now regulated under this Act. The Act reserves the titles "dental technician" and "registered dental technician" alone or in combination with other words for those registered with the association.

The Alberta Dental Technicians Association is now responsible for registration, practice review, and discipline of its members. The Act grants the Universities Coordinating Council the authority to approve educational programs and set the term of practical experience. It also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

The Act establishes the Dental Disciplines Advisory Committee consisting of three members of the public, a dentist, a dental hygienist, a dental assistant and a dental technician. This committee is to provide advice respecting regulations under the Act, and any other matter concerning dental health referred by the Minister. Regulations are currently being developed by each of the groups.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Dental Technicians, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	3	58,179	1:19,393
2 (Lethbridge)	6	119,110	1:19,852
3 (Pincher Creek)	0	36,149	—
4 (Hanna)	0	11,947	—
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	3	124,098	1:41,366
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	3	78,483	1:26,161
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	1	43,277	1:43,277
13 (Whitecourt)	1	57,521	1:57,521
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	0	49,490	—
17 (High Level)	0	48,962	—
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	3	74,855	1:24,952
Census Metropolitan Area (CMA) of Calgary	63	754,033	1:11,969
Census Metropolitan Area (CMA) of Edmonton	86	839,924	1:9,767
Provincial Total	169	2,545,553	1:15,062

¹ Source: Alberta Association of Dental Technicians. Number of dental technicians registered with the AADT and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Dental Technicians, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	63	754,033	1:11,969
Census Metropolitan Area (CMA) of Edmonton	86	839,924	1:9,767
10,000 to 69,999			
Camrose	3	13,420	1:4,473
Fort McMurray	0	34,706	—
Grande Prairie	3	28,271	1:9,424
Lethbridge	6	60,974	1:10,162
Lloydminster	0	10,042	—
Medicine Hat	3	43,625	1:14,542
Red Deer	2	58,134	1:29,067
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	1	5,132	1:5,132
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	2	547,756	1:273,878
Provincial Total	169	2,545,553	1:15,062

¹ Source: Alberta Association of Dental Technicians. Number of dental technicians registered with the AADT and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Dental Technicians in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	186 ¹	197 ¹	169 ²
% Change in Number of Registered Personnel	0.0%	5.9%	N/A
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:13,027	1:12,546	1:15,062

IV. Educational Programs

In order to become a dental technician, an individual must complete a two-year dental laboratory technology program, and a minimum of one-year of practical experience which is followed by a competency examination.

A two-year dental laboratory technology diploma program is offered at the Northern Alberta Institute of Technology (NAIT). The program produced 17 graduates in 1990-91.

Table 3
Educational Program for Dental Technicians in Alberta⁴

	1988-89	1989-90	1990-91
Dental Laboratory Technology Diploma			
Northern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	18	18	18
2nd Year	16	18	18
Graduates:	15	14	17

¹ Source: Dental Technicians Board, Alberta Professions and Occupations Bureau. Number of dental technicians registered with the Dental Technicians Board and residing in Alberta as of December 31 of the indicated year. Number includes dental technicians who were also denturists.

² Source: Alberta Association of Dental Technicians. Number of dental technicians registered with the AADT and residing in Alberta as of December 31, 1991.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

Dentists

I. Overview

Definition: The work of dentists is concerned with examining, diagnosing, preventing and treating ailments or abnormalities of gums and teeth, and includes oral surgery.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,358 dentists who resided in Alberta and registered with the Alberta Dental Association (ADA) in 1991. Of these dentists, 89 percent were general practitioners and 11 percent were specialists.¹ The number of dentists by specialty is shown in Table 4 of this chapter. Approximately 70 percent of the dentists were graduates of the University of Alberta Faculty of Dentistry, 22 percent were graduates of dental training programs in other Canadian provinces, and seven percent were graduates of schools of dentistry in other countries.²

Dentists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 75 percent of the total. The provincial dentist-to-population ratio was 1:1,874 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Board:

Alberta Dental Association
101, 8230 - 105 Street
Edmonton, Alberta
T6E 5H9

Executive Director: Dr. B. P. Martinello
Registrar: Dr. B. E. Leroy
President: Dr. J.W. Blair
President Elect: Dr. W. J. Hollingshead

b) Legislation:

Under the authority of the Dental Profession Act, all individuals who wish to practise as dentists must register with the Alberta Dental Association.

Besides registration functions, the ADA is responsible for regulating the conduct of its members and for practice review. The Dental Profession Act sets the educational qualifications required for registration with the ADA. Post-basic educational qualifications required for registration as a dental specialist are also set in regulation. The Universities Coordinating Council is responsible for the certification of specialists. The professional association also has the authority to prescribe continuing education programs which must be completed by members in order to qualify for re-registration.

¹ Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

² Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Dentists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	22	58,179	1:2,645
2 (Lethbridge)	50	119,110	1:2,382
3 (Pincher Creek)	15	36,149	1:2,410
4 (Hanna)	3	11,947	1:3,982
5 (Drumheller)	13	39,658	1:3,051
6 (Calgary excluding CMA)	14	50,769	1:3,626
7 (Stettler)	9	39,694	1:4,410
8 (Red Deer)	63	124,098	1:1,970
9 (Rocky Mountain House)	4	16,734	1:4,184
10 (Camrose)	27	78,483	1:2,907
11 (Edmonton excluding CMA)	4	36,368	1:9,092
12 (Bonnyville)	18	43,277	1:2,404
13 (Whitecourt)	14	57,521	1:4,109
14 (Hinton)	10	25,784	1:2,578
15 (Banff)	12	26,539	1:2,212
16 (Fort McMurray)	15	49,490	1:3,299
17 (High Level)	11	48,962	1:4,451
18 (Grande Cache)	4	13,979	1:3,495
19 (Grande Prairie)	25	74,855	1:2,994
Census Metropolitan Area (CMA) of Calgary	471	754,033	1:1,601
Census Metropolitan Area (CMA) of Edmonton	554	839,924	1:1,516
Provincial Total	1,358	2,545,553	1:1,874

¹ Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

² Source: 1991 Census, Statistics Canada.

Table 18
Community Breakdown of Registered Dentists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	471	754,033	1:1,601
Census Metropolitan Area (CMA) of Edmonton	554	839,924	1:1,516
10,000 to 69,999			
Camrose	9	13,420	1:1,491
Fort McMurray	13	34,706	1:2,670
Grande Prairie	16	28,271	1:1,767
Lethbridge	36	60,974	1:1,694
Lloydminster	6	10,042	1:1,674
Medicine Hat	21	43,625	1:2,077
Red Deer	50	58,134	1:1,163
Wetaskiwin	4	10,634	1:2,659
4,800 to 9,999			
Banff	5	5,688	1:1,138
Bonnyville	4	5,132	1:1,283
Brooks	4	9,433	1:2,358
Canmore	3	5,681	1:1,894
Coaldale	3	5,310	1:1,770
Crowsnest Pass	1	6,769	1:6,769
Drumheller	4	6,277	1:1,569
Edson	5	7,323	1:1,465
High River	3	6,269	1:2,090
Hinton	5	9,046	1:1,809
Innisfail	3	5,700	1:1,900
Lacombe	4	6,934	1:1,734
Okotoks	4	6,720	1:1,680
Olds	2	5,542	1:2,771
Peace River	5	6,717	1:1,343
Ponoka	3	5,861	1:1,954
Rocky Mountain House	4	5,461	1:1,365
Slave Lake	4	5,607	1:1,402
St. Paul	5	4,881	1:976
Stettler	3	4,947	1:1,649
Taber	3	6,660	1:2,220
Vegreville	5	5,138	1:1,028
Whitecourt	3	6,938	1:2,313
Under 4,800	93	547,756	1:5,890
Provincial Total	1,358	2,545,553	1:1,874

¹ Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Dentists in Alberta, 1989, 1990, And 1991

	1989	1990	1991
Number of Registered Personnel ¹	1,285	1,305	1,358
% Change in Number of Registered Personnel	2.1%	1.6%	4.1%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,886	1:1,894	1:1,874

IV. Educational Programs

The University of Alberta offers a four-year Doctor of Dental Surgery (DDS) degree program. A minimum of two years of university preparation is a pre-requisite for acceptance into the program. The program produced 43 graduates in 1990-91.

Table 3
Educational Program for Dentists in Alberta³

	1988-89	1989-90	1990-91
Doctor Of Dental Surgery			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	51	50	50
2nd Year	47	51	50
3rd Year	48	53	53
4th Year	49	44	44
Graduates:	45	49	43

¹ Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31 of the year indicated. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

Table 4
Dentists by Specialty and Personnel-to-Population Ratios By Specialty, Alberta, 1991

Specialty	Number of Dentists ¹	Personnel-to-Population Ratio ²
Dental Public Health	2	1:1,272,777
Endodontics	16	1:159,097
Oral Pathology	5	1:509,111
Oral Radiology	2	1:1,272,777
Oral and Maxillofacial Surgery	20	1:127,278
Orthodontics	51	1:49,913
Paedodontics	15	1:169,704
Periodontics	22	1:115,707
Prosthodontics	22	1:115,707
Total — Specialists ³	154	1:16,530
Total — Non-Specialists (General Practitioners)	1,204	1:2,114
Grand Total	1,358	1:1,874

¹ Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

² Source: Ratios calculated using a provincial population of 2,545,553 - 1991 Census, Statistics Canada.

³ Note: The total number of specialists is less than the sum of the dentists in each specialty because one dentist holds more than one specialty.

Denturists

I. Overview

Definition: Design, construct, fit and repair dentures. Measure patient's jaws to determine size and shape of dentures using face bows, dental articulators and other devices. Make impressions and moulds of teeth, gums and jaws and design dentures. Direct other workers to construct dentures.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 231 certified denturists (formerly known as certified dental mechanics) who resided in Alberta and registered with the Board of Examiners for Certified Dental Mechanics in 1991.¹ Denturists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 69 percent of the total. The provincial denturist-to-population ratio was 1:11,020 in 1991.

Denturists usually offer their services from denture clinics independent of a dentist. In Alberta, denturists are permitted to furnish complete dentures only, that is, appliances for individuals with no natural upper or lower teeth. Some of the services performed by denturists, such as the manufacture of complete dentures, are also provided by dental technicians. However, dental technicians are not permitted to fit appliances. Other functions of denturists, such as taking impressions for complete dentures, are also carried out by dentists (see chapters on Dental Technicians and Dentists).

¹ Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31, 1991. Number includes denturists who were also dental technicians.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Board of Examiners for Certified Dental Mechanics
c/o Professions and Occupations Bureau
5th Floor, Kensington Place
10011 - 109 Street
Edmonton, Alberta
T5J 3S8

Chairman: Mr. William J. Love

b) Professional Association:

Alberta Denturist Society
201, 2 Athabasca Avenue
Sherwood Park, Alberta
T8A 4E3

Administrator: Ms. Lorrie Rees

President: Mr. Shaun Yandt

c) Legislation:

Under the authority of the Dental Mechanics Act, individuals who wish to practise as denturists in the province must be certified by and registered with the Board of Examiners for Certified Dental Mechanics, a provincial government licensing body. Registration with the Denturist Society of Alberta is voluntary.

The Board is responsible for regulating the conduct of denturists and for maintaining professional discipline. It is empowered to re-examine any denturist at any time and to suspend or cancel his/her certification if warranted. The Board also sets the educational qualifications required for certification as a denturist in Alberta.

In 1981, the Dental Mechanics Act was amended to permit dental mechanics to identify themselves as "denturists." The titles "denturist," "dental mechanic," and "certified dental mechanic" are reserved for individuals registered under the Act.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Denturists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	4	58,179	1:14,545
2 (Lethbridge)	14	119,110	1:8,508
3 (Pincher Creek)	1	36,149	1:36,149
4 (Hanna)	0	11,947	—
5 (Drumheller)	9	39,658	1:4,406
6 (Calgary excluding CMA)	2	50,769	1:25,385
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	11	124,098	1:11,282
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	10	78,483	1:7,848
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	3	43,277	1:14,426
13 (Whitecourt)	2	57,521	1:28,761
14 (Hinton)	2	25,784	1:12,892
15 (Banff)	1	26,539	1:26,539
16 (Fort McMurray)	3	49,490	1:16,497
17 (High Level)	1	48,962	1:48,962
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	4	74,855	1:18,714
Census Metropolitan Area (CMA) of Calgary	63	754,033	1:11,969
Census Metropolitan Area (CMA) of Edmonton	97	839,924	1:8,659
Provincial Total	231	2,545,553	1:11,020

¹ Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31, 1991. Number includes denturists who were also dental technicians.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Denturists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	63	754,033	1:11,969
Census Metropolitan Area (CMA) of Edmonton	97	839,924	1:8,659
10,000 to 69,999			
Camrose	4	13,420	1:3,355
Fort McMurray	2	34,706	1:17,353
Grande Prairie	1	28,271	1:28,271
Lethbridge	9	60,974	1:6,775
Lloydminster	2	10,042	1:5,021
Medicine Hat	4	43,625	1:10,906
Red Deer	7	58,134	1:8,305
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	1	5,132	1:5,132
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	1	5,310	1:5,310
Crowsnest Pass	1	6,769	1:6,769
Drumheller	5	6,277	1:1,255
Edson	1	7,323	1:7,323
High River	1	6,269	1:6,269
Hinton	1	9,046	1:9,046
Innisfail	0	5,700	—
Lacombe	3	6,934	1:2,311
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	2	6,717	1:3,359
Ponoka	1	5,861	1:5,861
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	1	4,881	1:4,881
Stettler	2	4,947	1:2,474
Taber	2	6,660	1:3,330
Vegreville	1	5,138	1:5,138
Whitecourt	0	6,938	—
Under 4,800	18	547,756	1:30,431
Provincial Total	231	2,545,553	1:11,020

¹ Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31, 1991. Number includes denturists who were also dental technicians.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Denturists in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	208	218	231
% Change in Number of Registered Personnel	3.0%	3.8%	6.0%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:11,649	1:11,338	1:11,020

IV. Educational Programs

As a result of the 1988 amendment to the regulation governing denturists, individuals who wish to practise as denturists must now complete a formal education course of studies. In Alberta, this training consists of a two-year program in denturist technology offered by the Northern Alberta Institute of Technology. Graduates are then required to apprentice for two years under the supervision of a certified denturist and to pass a comprehensive examination. The diploma program produced 12 graduates in 1990-91. The number of newly-certified denturists in 1991 was ten.

Table 3
Educational Program for Denturists in Alberta³

	1988-89	1989-90	1990-91
Denturists Technology Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	18	18	18
2nd Year	18	18	18
Graduates:	13	16	12

¹ Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31 of the indicated year.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Dietary Technologists

I. Overview

Definition: Assist in planning and supervising food service programs in governmental, institutional and commercial establishments. Plan menus and diets, under direction of dietitian or nutritionist, to provide required food and nutrients to individuals and groups. Arrange work schedules and assist in supervision of those engaged in preparation and serving of meals. Purchase or requisition food, equipment and other supplies. Maintain food-cost-control and other operational records to assist in improving efficiency and quality of food service system. Inspect storage facilities and work areas to ensure observance of sanitation, safety and security standards. Maintain attendance and personnel records and assist with inventory of supplies and equipment.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since registration with the Alberta Society of Dietary Technologists is not mandatory, and since some dietary technologists are employed outside of health and social services, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 318 dietary technologists practising in the health and social service sector in Alberta in 1991.¹ Of these, 52 percent were employed in acute care hospitals, 16 percent in auxiliary hospitals and 21 percent in nursing homes.² Dietary technologists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 61 percent of the total. The provincial dietary technologist-to-population ratio was 1:8,005 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Alberta Dietary Technologists Association
P.O. Box 2353
Calgary, Alberta
T2P 2M6

President: Ms. Cathy Walling
President Elect: Ms. Pat Munro

c) Legislation:

There is no legislation regulating dietary technologists in Alberta at present. However, in October 1989, the professional association applied for designation under the Health Disciplines Act. The government is currently investigating the need to regulate this discipline.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Dietary Technologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	8	58,179	1:7,272
2 (Lethbridge)	11	119,110	1:10,828
3 (Pincher Creek)	9	36,149	1:4,017
4 (Hanna)	3	11,947	1:3,982
5 (Drumheller)	9	39,658	1:4,406
6 (Calgary excluding CMA)	4	50,769	1:12,692
7 (Stettler)	8	39,694	1:4,962
8 (Red Deer)	13	124,098	1:9,546
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	12	78,483	1:6,540
11 (Edmonton excluding CMA)	4	36,368	1:9,092
12 (Bonnyville)	3	43,277	1:14,426
13 (Whitecourt)	14	57,521	1:4,109
14 (Hinton)	2	25,784	1:12,892
15 (Banff)	2	26,539	1:13,270
16 (Fort McMurray)	3	49,490	1:16,497
17 (High Level)	3	48,962	1:16,321
18 (Grande Cache)	2	13,979	1:6,990
19 (Grande Prairie)	14	74,855	1:5,347
Census Metropolitan Area (CMA) of Calgary	86	754,033	1:8,768
Census Metropolitan Area (CMA) of Edmonton	108	839,924	1:7,777
Provincial Total	318	2,545,553	1:8,005

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Dietary Technologists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	86	754,033	1:8,768
Census Metropolitan Area (CMA) of Edmonton	108	839,924	1:7,777
10,000 to 69,999			
Camrose	1	13,420	1:13,420
Fort McMurray	2	34,706	1:17,353
Grande Prairie	4	28,271	1:7,068
Lethbridge	7	60,974	1:8,711
Lloydminster	8	10,042	1:1,255
Medicine Hat	7	43,625	1:6,232
Red Deer	7	58,134	1:8,305
Wetaskiwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	1	5,132	1:5,132
Brooks	1	9,433	1:9,433
Canmore	0	5,681	—
Coaldale	1	5,310	1:5,310
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	1	7,323	1:7,323
High River	2	6,269	1:3,135
Hinton	1	9,046	1:9,046
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	3	6,717	1:2,239
Ponoka	4	5,861	1:1,465
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	1	4,881	1:4,881
Stettler	0	4,947	—
Taber	1	6,660	1:6,660
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	69	547,756	1:7,938
Provincial Total	318	2,545,553	1:8,005

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Dietary Technologists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	279	317	318
% Change in Number of Practising Personnel	10.3%	13.6%	0.3%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:8,685	1:7,797	1:8,005

IV. Educational Programs

Both the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology offer a two-year program to train dietary technologists. The two programs together produced 47 graduates in 1990-91.

Table 3
Educational Programs for Dietary Technologists in Alberta³

	1988-89	1989-90	1990-91
Dietary Technology Diploma			
Northern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	25	21	26
2nd Year	20	25	19
Graduates:	16	21	13
Southern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	43	42	38
2nd Year	23	36	38
Graduates:	28	34	34
Provincial Total			
Number of Training Programs: 2			
Graduates:	44	55	47

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

Dietitians and Nutritionists

i. Overview

Definition: **Dietitians**

Plan and supervise food service programs in governmental, institutional and commercial establishments to provide nutritionally adequate quality food. Plan diets and menus and evaluate clients' acceptance. Plan and submit budget and manage and control operating costs. Establish and maintain standards of food production and service, sanitation, safety and security. Supervise workers and direct efficient use of personnel and equipment. Institute measures to improve efficiency and quality of food service system. Plan, conduct and evaluate orientation and in-service training programs. Determine food, equipment and supply requirements. Administer established personnel policies. Plan layout designs and determine equipment requirements for new or renovated food services facilities. Prepare material on nutritional value of foods, methods of preparation and recipes, if required.

Nutritionists

Provide consulting services to the community and organize, plan and conduct programs concerning nutrition to assist in promotion of health and prevention of disease. Assess nutritional needs and available resources of community. Develop and implement community programs concerning nutrition. Advise health and other agencies on nutritional and food services standards of their food programs. Counsel individuals and families in nutritional principles, diet, food selection and economical buying practices. Interpret and evaluate current research relating to nutrition and food service systems management to public and to staff. Conduct or participate in in-service education. Plan, conduct and evaluate nutrition education programs for public. Prepare technical publications and publications for the public concerning food and nutrition. Plan, conduct and evaluate dietary studies and participate in studies of diseases with nutrition component. Plan or participate in funding programs and recommend budget. Manage and control financial resources.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 435 dietitians and nutritionists who resided in Alberta and registered with the Alberta Registered Dietitians Association (ARDA) in 1991.¹ Not all registered dietitians and nutritionists practise in the health care and social service sector. According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, there were 343 dietitians and nutritionists employed in health and social service agencies and institutions in 1991.² Of these, 60 percent were employed in acute care hospitals, 15 percent in nursing homes and nine percent in auxiliary hospitals.³

Registered dietitians and nutritionists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 79 percent of all those registered. The registered dietitian and nutritionist-to-population ratio was 1:5,852 in Alberta in 1991.

¹ Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of March 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

³ Ibid.

II. Professional Association and Legislation Information

a) **Professional Association/Registration Body:**

Alberta Registered Dietitians Association
18104 - 102 Avenue
Edmonton, Alberta
T5S 1S7

Registrar: Ms. Arlene Smith
President: Ms. Laurel Temple
President Elect: Ms. Janet Anne Nielsen

b) **Legislation:**

Although there is no mandatory registration requirement under the Registered Dietitians Act for dietitians and nutritionists in order to practise in the province, only dietitians and nutritionists who are registered with the Alberta Registered Dietitians Association (ARDA) may use the title of "registered dietitian."

In addition to registration functions, the ARDA is responsible for regulating the conduct of its members and maintaining professional discipline. The Universities Coordinating Council evaluates the educational qualifications while the professional association evaluates the practical experience required for registration.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Dietitians and Nutritionists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	7	58,179	1:8,311
2 (Lethbridge)	12	119,110	1:9,926
3 (Pincher Creek)	5	36,149	1:7,230
4 (Hanna)	1	11,947	1:11,947
5 (Drumheller)	2	39,658	1:19,829
6 (Calgary excluding CMA)	5	50,769	1:10,154
7 (Stettler)	1	39,694	1:39,694
8 (Red Deer)	19	124,098	1:6,531
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	9	78,483	1:8,720
11 (Edmonton excluding CMA)	2	36,368	1:18,184
12 (Bonnyville)	3	43,277	1:14,426
13 (Whitecourt)	3	57,521	1:19,174
14 (Hinton)	1	25,784	1:25,784
15 (Banff)	5	26,539	1:5,308
16 (Fort McMurray)	5	49,490	1:9,898
17 (High Level)	0	48,962	—
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	8	74,855	1:9,357
Census Metropolitan Area (CMA) of Calgary	155	754,033	1:4,865
Census Metropolitan Area (CMA) of Edmonton	190	839,924	1:4,421
Provincial Total	435	2,545,553	1:5,852

¹ Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of March 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 18
Community Breakdown of Registered Dietitians and Nutritionists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	155	754,033	1:4,865
Census Metropolitan Area (CMA) of Edmonton	190	839,924	1:4,421
10,000 to 69,999			
Camrose	2	13,420	1:6,710
Fort McMurray	4	34,706	1:8,677
Grande Prairie	4	28,271	1:7,068
Lethbridge	11	60,974	1:5,543
Lloydminster	1	10,042	1:10,042
Medicine Hat	6	43,625	1:7,271
Red Deer	16	58,134	1:3,633
Wetaskwin	2	10,634	1:5,317
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	2	5,132	1:2,566
Brooks	0	9,433	—
Canmore	2	5,681	1:2,841
Coaldale	0	5,310	—
Crowsnest Pass	1	6,769	1:6,769
Drumheller	1	6,277	1:6,277
Edson	1	7,323	1:7,323
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	1	5,700	1:5,700
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	4	5,542	1:1,386
Peace River	1	6,717	1:6,717
Ponoka	1	5,861	1:5,861
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	1	5,138	1:5,138
Whitecourt	0	6,938	—
Under 4,800	27	547,756	1:20,287
Provincial Total	435	2,545,553	1:5,852

¹ Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of March 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Dietitians and Nutritionists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	401 ¹	437 ¹	435 ²
% Change in Number of Registered Personnel	5.8%	9.0%	-0.4%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:6,042	1:5,656	1:5,852

IV. Educational Programs

The Faculty of Home Economics at the University of Alberta offers a four-year baccalaureate degree program with a major in foods and nutrition. The program produced 53 graduates in 1990-91. The University of Alberta also offers separate master's degree programs in both foods and nutrition. There was one graduate from these two programs in 1990-91. In addition to post-secondary training, individuals must complete a dietetic internship in order to qualify as a registered dietitian.

¹ Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of April 30 of the indicated year.

² Source: Alberta Registered Dietitians Association. Number of Dietitians and Nutritionists registered with the ARDA and residing in Alberta as of March 31 of the indicated year.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Dietitians and Nutritionists in Alberta¹

	1988-89	1989-90	1990-91
A. Baccalaureate Program			
University of Alberta			
Home Economics: Foods and Nutrition			
(Program Length: 4 years)			
Enrolments:			
1st Year	38	35	34
2nd Year	68	55	52
3rd Year	57	41	43
4th Year	39	79	80
Graduates:	36	46	53
B. Master's Programs			
University of Alberta			
Home Economics: Foods			
(Program Length: 2 years)			
Enrolments:	6	3	2
Graduates:	1	1	—
University of Alberta			
Home Economics: Nutrition			
(Program Length: 2 years)			
Enrolments:	7	14	8
Graduates:	4	4	1
Provincial Total			
Number of M.Sc. Programs: 2			
Graduates:	5	5	1

¹ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

Emergency Medical Technicians

I. Overview

Definition: An emergency attendant:

Gives emergency care to sick and injured persons at the scene of an accident or illness and during transport to a hospital. Assists with lifting of patient onto wheeled cart or stretcher and into and out of ambulance. Gives first aid such as mouth-to-mouth resuscitation, cardiac massage, administration of oxygen and application of bandages and splints. Assists with rescue work, if required. Performs duties of ambulance driver if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Emergency medical technicians — ambulance (EMT-A) are ambulance attendants who have received training to provide emergency services at the basic life support level.¹

In Alberta, training at the EMT-A level is provided at the Southern Alberta Institute of Technology and at the Alberta Vocational College at Lac La Biche.

Emergency medical technicians — paramedic (EMT-P) are ambulance attendants who have received training to provide emergency services at the advanced life support level.²

In Alberta, training at the EMT-P level is provided at the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology.

As of 1986, registration for emergency medical technicians — paramedic and ambulance was set out under the Health Disciplines Act.

There were 1,537 emergency medical technicians registered with the Alberta Prehospital Professions Association (APPA) in this reporting period.³ Of the total, 71 percent were classified as ambulance attendants and 29 percent as paramedics. Emergency medical technicians in the Census Metropolitan Areas of Calgary and Edmonton accounted for 49 percent of the total. The provincial emergency medical technician personnel-to-population ratio was 1:1,656.

In Alberta, municipalities have the power to set the level of ambulance services. Some municipalities have established ambulance services at the advanced life support level. According to the Alberta Ambulance Operators Association (AAOA) listing of March 1992, 38 of the 100 ambulance operators licensed by the AAOA provide service at the advanced life support level. This factor partly accounts for the uneven distribution of emergency medical personnel in Alberta.

¹ "Basic life support is an emergency first aid procedure that consists of recognizing respiratory and cardiac arrest and starting the proper application of cardiopulmonary resuscitation to maintain life until a victim recovers sufficiently to be transported or until advanced life support is available." (American Heart Association, "Standards for cardiopulmonary resuscitation and emergency cardiac care." *Journal of the American Medical Association*, Vol. 227, No. 7, Supplement; 1974: p. 84).

² According to the American Heart Association, advanced life support for the patient in cardiac arrest consists of the following elements: basic life support, use of adjunctive equipment for ventilation and circulation, cardiac monitoring for dysrhythmia recognition and control, defibrillation, establishment and maintenance of an intravenous infusion lifeline, employment of definitive therapy, including drug administration and stabilization of the patient's condition. (American Heart Association, "Standards for cardiopulmonary resuscitation and emergency cardiac care." *Journal of the American Medical Association*, Vol. 227, No. 17, Supplement; 1974.)

³ Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Prehospital Professions Association
8711 - 50 Avenue
Edmonton, Alberta
T6E 5H4

Registrar: Ms. Jackeline Osborne
Chairman: Mr. Murray Brosnikoff

b) Legislation:

There are several statutes which set standards for ambulance services and ambulance attendants.

The Ambulance Services Act received royal assent on July 5, 1990. It is expected that the Act and regulations could be proclaimed in 1992, providing there are no major issues identified by the stakeholders during the three month public review process.

The Municipal Government Act allows municipalities to provide ambulance services. Some municipalities have enacted bylaws respecting the provision of ambulance service.

The Health Disciplines Act sets educational standards for individuals who practise in a discipline regulated under the Act. Emergency medical technicians, both ambulance and paramedic, have been regulated under this Act since December 31, 1985. The Alberta Prehospital Professions Association is designated under the Act as responsible for registration and discipline of members. The titles "emergency medical technician — ambulance" and "emergency medical technician — paramedic" are reserved for registered members. In addition, the Act provides a mechanism to hear complaints against a registered member, and to discipline those whose skill, judgement or conduct is unacceptable, or those who contravene the legislation.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Emergency Medical Technicians, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	28	58,179	1:2,078
2 (Lethbridge)	107	119,110	1:1,113
3 (Pincher Creek)	28	36,149	1:1,291
4 (Hanna)	11	11,947	1:1,086
5 (Drumheller)	32	39,658	1:1,239
6 (Calgary excluding CMA)	48	50,769	1:1,058
7 (Stettler)	27	39,694	1:1,470
8 (Red Deer)	142	124,098	1:874
9 (Rocky Mountain House)	9	16,734	1:1,859
10 (Camrose)	36	78,483	1:2,180
11 (Edmonton excluding CMA)	20	36,368	1:1,818
12 (Bonnyville)	41	43,277	1:1,056
13 (Whitecourt)	34	57,521	1:1,692
14 (Hinton)	17	25,784	1:1,517
15 (Banff)	27	26,539	1:983
16 (Fort McMurray)	44	49,490	1:1,125
17 (High Level)	33	48,962	1:1,484
18 (Grande Cache)	7	13,979	1:1,997
19 (Grande Prairie)	56	74,855	1:1,337
Census Metropolitan Area (CMA) of Calgary	367	754,033	1:2,055
Census Metropolitan Area (CMA) of Edmonton	387	839,924	1:2,170
Location Unknown	36	—	—
Provincial Total	1,537	2,545,553	1:1,656

¹ Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 18
Community Breakdown of Registered Emergency Medical Technicians, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	367	754,033	1:2,055
Census Metropolitan Area (CMA) of Edmonton	387	839,924	1:2,170
10,000 to 69,999			
Camrose	3	13,420	1:4,473
Fort McMurray	31	34,706	1:1,120
Grande Prairie	23	28,271	1:1,229
Lethbridge	86	60,974	1:709
Lloydminster	4	10,042	1:2,511
Medicine Hat	24	43,625	1:1,818
Red Deer	89	58,134	1:653
Wetaskiwin	14	10,634	1:760
4,800 to 9,999			
Banff	8	5,688	1:711
Bonnyville	17	5,132	1:302
Brooks	10	9,433	1:943
Canmore	8	5,681	1:710
Coaldale	6	5,310	1:885
Crowsnest Pass	5	6,769	1:1,354
Drumheller	7	6,277	1:897
Edson	5	7,323	1:1,465
High River	14	6,269	1:448
Hinton	10	9,046	1:905
Innisfail	14	5,700	1:407
Lacombe	13	6,934	1:533
Okotoks	11	6,720	1:611
Olds	7	5,542	1:792
Peace River	3	6,717	1:2,239
Ponoka	8	5,861	1:733
Rocky Mountain House	7	5,461	1:780
Slave Lake	8	5,607	1:701
St. Paul	8	4,881	1:610
Stettler	8	4,947	1:618
Taber	2	6,360	1:3,330
Vegreville	5	5,138	1:1,028
Whitecourt	3	6,938	1:2,313
Under 4,800	286	547,756	1:1,915
Location Unknown	36	—	—
Provincial Total	1,537	2,545,553	1:1,656

¹ Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Emergency Medical Technicians
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	1,311 ¹	1,407 ²	1,537 ²
% Change in Number of Registered Personnel	-2.3%	7.3%	9.2%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,848	1:1,757	1:1,656

IV. Educational Programs

Both the Southern Alberta Institute of Technology and the Northern Alberta Institute of Technology offer a two-year diploma program in emergency medical technology-paramedic. The two programs produced 30 graduates in 1990-91. Alberta Vocational College — Lac La Biche and the Southern Alberta Institute of Technology each offer a program (of varying lengths) in emergency medical technology — ambulance. The two programs produced 208 graduates in 1990-91.

¹ Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of February, 15, 1990.

² Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31 of the indicated year.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Emergency Medical Technicians in Alberta¹

	1988-89	1989-90	1990-91
A. EMT — Paramedic Technology Diploma			
Northern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	17	20	23
2nd Year	20	20	15
Graduates:	27	18	13
Southern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	31	22	23
2nd Year	19	25	20
Graduates:	14	21	17
Provincial Total			
Number of Training Programs: 2			
Graduates:	41	39	30
B. EMT — Ambulance Technology Certificate			
Alberta Vocational College — Lac La Biche (Program Length: Approx. 200 hours)			
Enrolments:			
1st Year	66	93	46
Graduates:	42	83 ²	51
Southern Alberta Institute of Technology (Program Length: Approx. 250-300 hours)			
Enrolments:			
1st Year	194	212	232
Graduates:	145	86	157 ³
Provincial Total			
Number of Training Programs: 2			
Graduates:	187	169	208

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Graduate figures include students awarded the Wilderness Medical Technician and Emergency Medical Technician Certificates. The former has not been issued since February 1987.

³ Includes a number of students who started in the 1989-90 school year.

Health Record Administrators

I. Overview

Definition: Compile and maintain medical records and statistics of hospital and clinic patients. Review clinical records for completeness and contact medical personnel to obtain missing data. Code, index and file records of diagnoses, diseases and treatments. Compile statistics such as reports on admissions, births, deaths, transfers and discharges. Release medical information to staff and authorized government agencies, insurance companies, physicians, hospitals and medical information and research centres. May brief and transcribe records. May testify in court to authenticate medical records.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

The survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information because data from the professional association represents both health record administrators and technicians.

There were 139 health record administrators practising in Alberta in 1991.¹ Seventy-seven percent of these individuals were employed in acute care hospitals.² Health record administrators employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 52 percent of the total. The provincial health record administrator-to-population ratio was 1:18,313 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Alberta Health Record Association
P.O. Box 1752
Edmonton, Alberta
T5J 2P1

President: Ms. Jean Shultz

c) Legislation:

There is no legislation regulating health record administrators in Alberta. The professional association applied for designation under the Health Disciplines Act. However, the Health Disciplines Board determined there was insufficient evidence of risk to the public to warrant regulation.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Health Record Administrators, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	1	58,179	1:58,179
2 (Lethbridge)	5	119,110	1:23,822
3 (Pincher Creek)	4	36,149	1:9,037
4 (Hanna)	1	11,947	1:11,947
5 (Drumheller)	1	39,658	1:39,658
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	4	39,694	1:9,924
8 (Red Deer)	9	124,098	1:13,789
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	7	78,483	1:11,212
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	3	43,277	1:14,426
13 (Whitecourt)	7	57,521	1:8,217
14 (Hinton)	0	25,784	—
15 (Banff)	1	26,539	1:26,539
16 (Fort McMurray)	1	49,490	1:49,490
17 (High Level)	7	48,962	1:6,995
18 (Grande Cache)	2	13,979	1:6,990
19 (Grande Prairie)	9	74,855	1:8,317
Census Metropolitan Area (CMA) of Calgary	24	754,033	1:31,418
Census Metropolitan Area (CMA) of Edmonton	49	839,924	1:17,141
Provincial Total	139	2,545,553	1:18,313

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Health Record Administrators, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	24	754,033	1:31,418
Census Metropolitan Area (CMA) of Edmonton	49	839,924	1:17,141
10,000 to 69,999			
Camrose	2	13,420	1:6,710
Fort McMurray	0	34,706	—
Grande Prairie	4	28,271	1:7,068
Lethbridge	2	60,974	1:30,487
Lloydminster	0	10,042	—
Medicine Hat	1	43,625	1:43,625
Red Deer	2	58,134	1:29,067
Wetaskwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	1	5,132	1:5,132
Brooks	2	9,433	1:4,717
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	1	6,277	1:6,277
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	1	5,700	1:5,700
Lacombe	1	6,934	1:6,934
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	1	6,717	1:6,717
Ponoka	4	5,861	1:1,465
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	2	5,607	1:2,804
St. Paul	2	4,881	1:2,441
Stettler	1	4,947	1:4,947
Taber	1	6,660	1:6,660
Vegreville	0	5,138	—
Whitecourt	2	6,938	1:3,469
Under 4,800	31	547,756	1:17,670
Provincial Total	139	2,545,553	1:18,313

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Health Record Administrators
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	140	156	139
% Change in Number of Practising Personnel	3.7%	11.4%	-10.9%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:17,307	1:15,844	1:18,313

IV. Educational Programs

The Northern Alberta Institute of Technology offers a two-year health records administration diploma program. The program produced 15 graduates in 1990-91.

Table 3
Educational Program for Health Record Administrators in Alberta³

	1988-89	1989-90	1990-91
Health Record Administration Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	17	17	17
2nd Year	12	15	15
Graduates:	13	16	15

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

Health Record Technicians

I. Overview

Definition: Assist health record administrators, carry out many technical activities within the medical record department, typing medical information, preparing statistical reports, reviewing medical records, supervising clerical personnel, working with doctors, nurses and other health professionals on medical research projects.

(Source: **Health Manpower Provincial Report, Manitoba, 1982**. Winnipeg, Manitoba: Manitoba Department of Health, 1982)

The survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information because data from the professional association represents both health record administrators and technicians.

There were 355 health record technicians practising in Alberta in 1991.¹ Of these, 81 percent were employed in acute care hospitals.² Health record technicians employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 48 percent of the total. The provincial health record technician-to-population ratio was 1:7,170 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Alberta Health Record Association
P.O. Box 1752
Edmonton, Alberta
T5J 2P1

President: Ms. Jean Shultz

c) Legislation:

There is no legislation regulating health record technicians in Alberta. The professional association applied for designation and regulation under the Health Disciplines Act. However, the Health Disciplines Board determined there was insufficient evidence of risk to the public to warrant regulation.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Health Record Technicians, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	9	58,179	1:6,464
2 (Lethbridge)	27	119,110	1:4,411
3 (Pincher Creek)	6	36,149	1:6,025
4 (Hanna)	3	11,947	1:3,982
5 (Drumheller)	7	39,658	1:5,665
6 (Calgary excluding CMA)	14	50,769	1:3,626
7 (Stettler)	14	39,694	1:2,835
8 (Red Deer)	31	124,098	1:4,003
9 (Rocky Mountain House)	3	16,734	1:5,578
10 (Camrose)	21	78,483	1:3,737
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	10	43,277	1:4,328
13 (Whitecourt)	6	57,521	1:9,587
14 (Hinton)	2	25,784	1:12,892
15 (Banff)	5	26,539	1:5,308
16 (Fort McMurray)	4	49,490	1:12,373
17 (High Level)	6	48,962	1:8,160
18 (Grande Cache)	2	13,979	1:6,990
19 (Grande Prairie)	11	74,855	1:6,805
Census Metropolitan Area (CMA) of Calgary	98	754,033	1:7,694
Census Metropolitan Area (CMA) of Edmonton	73	839,924	1:11,506
Provincial Total	355	2,545,553	1:7,170

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Health Record Technicians, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	98	754,033	1:7,694
Census Metropolitan Area (CMA) of Edmonton	73	839,924	1:11,506
10,000 to 69,999			
Camrose	7	13,420	1:1,917
Fort McMurray	1	34,706	1:34,706
Grande Prairie	1	28,271	1:28,271
Lethbridge	19	60,974	1:3,209
Lloydminster	0	10,042	—
Medicine Hat	8	43,625	1:5,453
Red Deer	18	58,134	1:3,230
Wetaskwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	2	5,132	1:2,566
Brooks	1	9,433	1:9,433
Canmore	1	5,681	1:5,681
Coaldale	1	5,310	1:5,310
Crowsnest Pass	2	6,769	1:3,385
Drumheller	1	6,277	1:6,277
Edson	1	7,323	1:7,323
High River	6	6,269	1:1,045
Hinton	1	9,046	1:9,046
Innisfail	3	5,700	1:1,900
Lacombe	1	6,934	1:6,934
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	2	6,717	1:3,359
Ponoka	5	5,861	1:1,172
Rocky Mountain House	3	5,461	1:1,820
Slave Lake	1	5,607	1:5,607
St. Paul	1	4,881	1:4,881
Stettler	1	4,947	1:4,947
Taber	2	6,660	1:3,330
Vegreville	2	5,138	1:2,569
Whitecourt	0	6,938	—
Under 4,800	89	547,756	1:6,155
Provincial Total	355	2,545,553	1:7,170

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Health Record Technicians
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	355	356	355
% Change in Number of Practising Personnel	2.3%	0.3%	-0.3%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:6,825	1:6,943	1:7,170

IV. Educational Programs

The Southern Alberta Institute of Technology (SAIT) offers a 12-month health record technician certificate program. The program produced 19 graduates in 1990-91.

Table 3
Educational Program for Health Record Technicians in Alberta³

	1988-89	1989-90	1990-91
Health Record Technician Certificate			
Southern Alberta Institute of Technology (Program Length: 12 months)			
Enrolments:	27	27	28
Graduates:	17	23	19

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Licensed Practical Nurses

I. Overview

Definition: Provide nursing care for patients in hospitals, nursing homes, clinics and similar establishments. Take and record blood pressure, temperature, pulse and respiration rates. Apply dressings and administer injections, medications and treatments under supervision.¹ Report and record observations and symptoms indicative of change in condition of patients. Assist with admission and discharge of patients. Bathe patients, make beds and assist with rehabilitation procedures. Feed and assist patients in feeding themselves. Answer call-bells and patients' or visitors' inquiries and perform other bedside services. Perform duties in operating room, outpatients and other specialized areas, if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

In 1977, certified nursing aides and registered nursing orderlies were renamed registered nursing assistants in accordance with the Nursing Assistants Registration Act of 1976. Nursing assistants were designated under the Health Disciplines Act in 1987. In December 1990 the Nursing Assistants Regulation (Alta. Reg. 306/86) was amended to include the use of the title "licensed practical nurse" (L.P.N.).

There were 6,266 practical nurses who resided in Alberta and registered with the Professional Council of Licensed Practical Nurses (PCLPN) in 1991.² According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, there were 4,668 licensed practical nurses employed as of March 31, 1991.³ Based on registration data however, the licensed practical nurse-to-population ratio was 1:406 in Alberta in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Authority:

Professional Council of Licensed Practical Nurses
10604 - 170 Street
Edmonton, Alberta
T5S 1P3

Executive Director/Registrar: Ms. Pat Fredrickson
President: Mr. Wayne Siewert

b) Legislation:

Since January 1, 1987, nursing assistants have been regulated under the Health Disciplines Act. Under this Act, the Professional Council of Licensed Practical Nurses is designated as the body responsible for registration and professional conduct of its members. The Health Disciplines Board is responsible for setting educational qualifications for registration purposes. Under the authority of the Health Disciplines Act, all individuals who wish to use the title "licensed practical nurse," "registered nursing assistant" or "registered nursing orderly" must register with the Council.

¹ Alberta Legislation only permits nursing assistants who have received supplementary training in the administration of medicine to administer oral medications other than narcotics, and prohibits them from giving injections.

² Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31, 1991.

³ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Licensed Practical Nurses, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	180	58,179	1:323
2 (Lethbridge)	299	119,110	1:398
3 (Pincher Creek)	164	36,149	1:220
4 (Hanna)	75	11,947	1:159
5 (Drumheller)	127	39,658	1:312
6 (Calgary excluding CMA)	183	50,769	1:277
7 (Stettler)	212	39,694	1:187
8 (Red Deer)	296	124,098	1:419
9 (Rocky Mountain House)	41	16,734	1:408
10 (Camrose)	304	78,483	1:258
11 (Edmonton excluding CMA)	97	36,368	1:375
12 (Bonnyville)	141	43,277	1:307
13 (Whitecourt)	185	57,521	1:311
14 (Hinton)	42	25,784	1:614
15 (Banff)	91	26,539	1:292
16 (Fort McMurray)	46	49,490	1:1,076
17 (High Level)	129	48,962	1:380
18 (Grande Cache)	38	13,979	1:368
19 (Grande Prairie)	344	74,855	1:218
Census Metropolitan Area (CMA) of Calgary	1,215	754,033	1:621
Census Metropolitan Area (CMA) of Edmonton	2,039	839,924	1:412
Location Unknown	18	—	—
Provincial Total	6,266	2,545,553	1:406

¹ Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Licensed Practical Nurses, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	1,215	754,033	1:621
Census Metropolitan Area (CMA) of Edmonton	2,039	839,924	1:412
10,000 to 69,999			
Camrose	68	13,420	1:197
Fort McMurray	22	34,706	1:1,578
Grande Prairie	139	28,271	1:203
Lethbridge	142	60,974	1:429
Lloydminster	14	10,042	1:717
Medicine Hat	149	43,625	1:293
Red Deer	124	58,134	1:469
Wetaskiwin	68	10,634	1:156
4,800 to 9,999			
Banff	9	5,688	1:632
Bonnyville	32	5,132	1:160
Brooks	35	9,433	1:270
Canmore	16	5,681	1:355
Coaldale	13	5,310	1:408
Crowsnest Pass	55	6,769	1:123
Drumheller	24	6,277	1:262
Edson	18	7,323	1:407
High River	36	6,269	1:174
Hinton	14	9,046	1:646
Innisfail	38	5,700	1:150
Lacombe	17	6,934	1:408
Okotoks	15	6,720	1:448
Olds	51	5,542	1:109
Peace River	29	6,717	1:232
Ponoka	36	5,861	1:163
Rocky Mountain House	36	5,461	1:152
Slave Lake	22	5,607	1:255
St. Paul	35	4,881	1:139
Stettler	41	4,947	1:121
Taber	29	6,660	1:230
Vegreville	23	5,138	1:223
Whitecourt	13	6,938	1:534
Under 4,800	1,631	547,756	1:336
Location Unknown	18	—	—
Provincial Total	6,266	2,545,553	1:406

¹ Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Licensed Practical Nurses
in Alberta, 1989, 1990 and 1991

	1989	1990	1991
Number of Registered Personnel	6,005 ¹	6,488 ²	6,266 ²
% Change in Number of Registered Personnel	N/A	7.4%	-3.4%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:403	1:381	1:406

IV. Educational Programs

The Alberta Vocational Colleges (AVC) in Calgary, Edmonton and Lesser Slave Lake offer a practical nurse certificate program which is approximately 10 months in length. The Calgary program includes off-campus instruction at Crowsnest Pass, Drumheller and Claresholm. The Edmonton program also includes off-campus instruction at Athabasca, Beaverlodge, Rocky Mountain House and Wainwright. In 1990-91, there were a total of 266 graduates from these three programs.⁴

A six-month practical nurse refresher program is offered at both AVC— Calgary and AVC— Edmonton. There were 48 graduates in 1990-91 from the two programs.⁴

In addition to the basic and refresher programs, a post-basic course, "Administration of Oral Medications" is being offered through AVC— Edmonton and AVC— Calgary. This is a distance delivery course of 9 to 11 weeks in length designed as part-time study for individuals who are presently employed. This course was offered as a pilot project in 1986. In 1991, there were 260 practical nurses who completed this program.⁵

Another specialist course, "Working with the Aged" is offered through the PCLPN. This is a classroom delivery course of 160 hours (four 40-hour semesters spanned over 15 months). A total of 77 students successfully completed this program in 1991.⁶

In conjunction with AVC— Edmonton and the University of Alberta Hospital, the PCLPN developed the 20-week course "Orthopedic Technician Program." This course provides an opportunity for licensed practical nurses (LPN) to gain the knowledge and skills necessary to become certified as an orthopedic technician. In 1991, 11 students completed this program.⁷

In addition, "Intravenous Therapy" for the LPN, a ten-hour workshop developed and delivered to comply with the licensed practical nurses regulation, is available. The program is designed to update and supplement the LPN with the knowledge and skills required to maintain intravenous therapy in a safe and competent manner. In 1991, 134 practical nurses completed this program.⁸

¹ Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of February 27, 1990.

² Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31 of the indicated year.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

⁵ Source: Professional Council of Licensed Practical Nurses, December 31, 1991.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

In 1991 a pilot course, "Adult Physical Assessment," was developed and offered. The program was designed to help LPN's apply their knowledge to interpreting symptoms and understanding physical signs. Also, it will aid LPN's in the interviewing and history taking process when doing assessments. A total of nine students successfully completed the pilot course.¹

TABLE 3
Educational Programs For Licensed Practical Nurses In Alberta²

	1988-89	1989-90	1990-91
Certificate Program			
Alberta Vocational College — Calgary ³ (Program Length: 38 weeks)			
Enrolments:	159	170	184
Graduates:	100	117	117
Alberta Vocational College — Edmonton ⁴ (Program Length: 38 weeks)			
Enrolments:	152	186	180
Graduates:	122	113	141
Alberta Vocational College — Lesser Slave Lake (Program Length: 38 weeks)			
Enrolments:	—	17	16
Graduates:	—	9	8
Provincial Total			
Number of Training Programs: 3			
Graduates:	222	239	266

¹ Source: Professional Council of Licensed Practical Nurses, December 31, 1991.

² Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

³ This program is also offered at the Chinook and Big County Educational consortia.

⁴ The 1988-89 data includes outreach programs at Beaverlodge, Drayton Valley, Wabasca and Grouard. The 1989-90 data includes outreach programs at Athabasca, Beaverlodge, Rocky Mountain House and Wainwright.

Medical Laboratory Technologists

I. Overview

Definition: Perform medical laboratory tests, procedures, experiments and analyses for the diagnosis, treatment and prevention of disease. Conduct chemical analysis of blood, urine, cerebro-spinal and other body fluids to ascertain normal and abnormal constituents. Study blood cells, their numbers, morphological characteristics and coagulation factors related to various physiological and pathological conditions. Prepare tissue sections for microscopic examination using fixation, imbedding, cutting and staining techniques to demonstrate special cellular tissue elements or other characteristics. Study micro-organisms which cause disease and their effect upon the human body, using a variety of microscopic and macroscopic techniques. Perform blood group, type and compatibility tests for transfusion purposes. Investigate responses of body to foreign cells or agents.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since registration with the Alberta branch of the Canadian Society of Laboratory Technologists is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 2,610 medical laboratory technologists practising in Alberta in 1991.¹ Fifty-two percent of these individuals were employed in acute care hospitals; an additional 39 percent worked in medical laboratories and x-ray facilities.² Medical laboratory technologists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 78 percent of the total. The provincial medical laboratory technologist-to-population ratio was 1:975 in 1991.

Some of the basic laboratory services provided by medical laboratory technologists are provided by combined laboratory and x-ray technicians, especially in small rural hospitals (see chapter on Combined Laboratory and X-Ray Technicians).

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Ibid.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Alberta Society of Medical Laboratory Technologists
Box 4165
Edmonton, Alberta
T6E 4T2

President: Ms. Terry Brent

President Elect: Mr. Tom Stowe

c) Legislation:

Medical Laboratory Technologists were designated under the Health Disciplines Act in the 1992 spring session of the legislature. Regulations will still need to be developed.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Medical Laboratory Technologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	45	58,179	1:1,293
2 (Lethbridge)	101	119,110	1:1,179
3 (Pincher Creek)	14	36,149	1:2,582
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	21	39,658	1:1,888
6 (Calgary excluding CMA)	29	50,769	1:1,751
7 (Stettler)	23	39,694	1:1,726
8 (Red Deer)	111	124,098	1:1,118
9 (Rocky Mountain House)	4	16,734	1:4,184
10 (Camrose)	44	78,483	1:1,784
11 (Edmonton excluding CMA)	13	36,368	1:2,798
12 (Bonnyville)	20	43,277	1:2,164
13 (Whitecourt)	25	57,521	1:2,301
14 (Hinton)	15	25,784	1:1,719
15 (Banff)	18	26,539	1:1,474
16 (Fort McMurray)	30	49,490	1:1,650
17 (High Level)	10	48,962	1:4,896
18 (Grande Cache)	6	13,979	1:2,330
19 (Grande Prairie)	50	74,855	1:1,497
Census Metropolitan Area (CMA) of Calgary	884	754,033	1:853
Census Metropolitan Area (CMA) of Edmonton	1,145	839,924	1:734
Provincial Total	2,610	2,545,553	1:975

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Medical Laboratory Technologists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	884	754,033	1:853
Census Metropolitan Area (CMA) of Edmonton	1,145	839,924	1:734
10,000 to 69,999			
Camrose	12	13,420	1:1,118
Fort McMurray	23	34,706	1:1,509
Grande Prairie	30	28,271	1:942
Lethbridge	84	60,974	1:726
Lloydminster	11	10,042	1:913
Medicine Hat	42	43,625	1:1,039
Red Deer	93	58,134	1:625
Wetaskiwin	13	10,634	1:818
4,800 to 9,999			
Banff	6	5,688	1:948
Bonnyville	7	5,132	1:733
Brooks	7	9,433	1:1,348
Canmore	5	5,681	1:1,136
Coaldale	2	5,310	1:2,655
Crowsnest Pass	5	6,769	1:1,354
Drumheller	8	6,277	1:785
Edson	6	7,323	1:1,221
High River	17	6,269	1:369
Hinton	9	9,046	1:1,005
Innisfail	1	5,700	1:5,700
Lacombe	5	6,934	1:1,387
Okotoks	0	6,720	—
Olds	4	5,542	1:1,386
Peace River	6	6,717	1:1,120
Ponoka	8	5,861	1:733
Rocky Mountain House	4	5,461	1:1,365
Slave Lake	2	5,607	1:2,804
St. Paul	7	4,881	1:697
Stettler	8	4,947	1:618
Taber	7	6,660	1:951
Vegreville	0	5,138	—
Whitecourt	3	6,938	1:2,313
Under 4,800	146	547,756	1:3,752
Provincial Total	2,610	2,545,553	1:975

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Medical Laboratory Technologists
in Alberta, 1989, 1990 and 1991

	1989	1990	1991
Number of Practising Personnel ¹	2,563	2,754	2,610
% Change in Number of Practising Personnel	6.4%	7.4%	-5.2%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio:			
— Alberta	1:945	1:897	1:975
— Western Canada ³	1:1,044	1:1,026	—

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined. Health and Welfare Canada, July 1992.

IV. Educational Programs

Both the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology, in cooperation with a number of hospitals in Edmonton, Calgary, Red Deer and Lethbridge, offer a two-year medical laboratory technology diploma program. Together, the two programs produced 104 graduates in 1990-91. In addition, the University of Alberta offers a four-year bachelor of science program in medical laboratory science. This program produced 20 graduates in 1990-91.

Table 3
Educational Programs for Medical Laboratory Technologists in Alberta¹

	1988-89	1989-90	1990-91
A. Diploma Programs			
Northern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	73	72	72
2nd Year	68	62	65
Graduates:	67	60	61
Southern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	47	46	42
2nd Year	40	45	46
Graduates:	40	45	43
Provincial Total			
Number of Training Programs: 2			
Graduates:	107	105	104
B. Baccalaureate Program			
University of Alberta (Program Length: 4 years)			
Enrolments:			
1st Year	36	34	28
2nd Year	26	26	30
3rd Year	25	22	22
4th Year	20	21	25
Graduates:	20	20	21

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Medical Radiation Technologists

I. Overview

Definition: **Radiographic Technologists**

Operate radiography equipment to produce pictures of body structures for diagnostic purposes. Explain treatment and reassure patients. Prepare drugs and chemicals for radiologist. Position patient according to part of body being x-rayed. Affix shields to protect unaffected areas of patient from radiation. Adjust equipment controls to collimate beam, to regulate length and intensity of x-ray exposure and to expose film. Process and prepare films for interpretation by radiologist. Assist radiologist in fluoroscopy, cinefluoroscopy and other diagnostic procedures. Operate radiography equipment in operating theatre or other specialized area to assist physician or surgeon.

Radiation Oncology Technologists

Administer radiation treatment to patients as prescribed by radiation oncologist. Explain treatment and reassure patients. Position patient according to part of body being treated. Affix shields to protect unaffected areas of patient from radiation. Adjust equipment controls to collimate beam. Observe patient through window or on closed circuit television during treatment. Notify radiation oncologist if medical problems arise. Assist clinical physicist to prepare patient's treatment plan according to radiation oncologist's prescription. Process or assist in preparation of sealed radioactive substances for surface application or insertion into body cavities.

Nuclear Medicine Technologists

Prepare radioactive solutions and reagents and operate scanning equipment for diagnostic purposes. Perform assays and quality-control tests on radioactive materials. Calculate doses to be administered by physician. Position patient and calibrate scanning equipment. Operate radiation-scanning equipment to produce photographic image of irradiated area. Calculate blood volume and red-cell survival, using geiger counter, electroscope, scaler, scintillation and position scanner and scintigram.

Monitor oscilloscope images and study photographic images to determine if further scanning is required. Perform radioisotope scanning of pathological specimens and blood samples.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Medical radiation technologists have been regulated under the Health Disciplines Act since January 1, 1986. Beginning in February 1988, the professional association assumed responsibility for registration and discipline of its members.

There were 1,329 medical radiation technologists registered with the Alberta Association of Medical Radiation Technologists in 1991. Of these, 1,129 were radiographic technologists, 116 were nuclear medicine technologists and 78 were radiation oncology technologists. Six individuals were qualified in more than one specialty.¹ Medical radiation technologists in the Census Metropolitan Areas of Calgary and Edmonton accounted for 73 percent of the total. All radiation oncology technologists are employed in Edmonton or Calgary at the Cross Cancer Institute or the Tom Baker Cancer Centre. The provincial personnel-to-population ratio was 1:1,915 in 1991.

Some of the basic x-ray services performed by medical radiation technologists are provided by combined laboratory and x-ray technicians, especially in small rural hospitals (see chapter on Combined Laboratory and X-Ray Technicians).

II. Professional Association and Legislation Information

a) Professional Association/Registration Board:

Alberta Association of Medical Radiation Technologists
Suite #1, 2nd Floor
2210 - 39 Street North
Lethbridge, Alberta
T1H 5J2

President: Mr. Peter Klassen

b) Legislation:

Regulations under the Health Disciplines Act set educational standards for registration and procedures for discipline of medical radiation technologists. These regulations also reserve the titles "medical radiation technologist," "nuclear medicine technologist," "radiation oncology technologist" and "radiographic technologist" for individuals registered under the Act. The Alberta Association of Medical Radiation Technologists is responsible for registration and investigation of complaints against members.

¹ Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31, 1991.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Medical Radiation Technologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	22	58,179	1:2,645
2 (Lethbridge)	63	119,110	1:1,891
3 (Pincher Creek)	12	36,149	1:3,012
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	10	39,658	1:3,966
6 (Calgary excluding CMA)	20	50,769	1:2,538
7 (Stettler)	15	39,694	1:2,646
8 (Red Deer)	54	124,098	1:2,298
9 (Rocky Mountain House)	6	16,734	1:2,789
10 (Camrose)	33	78,483	1:2,378
11 (Edmonton excluding CMA)	11	36,368	1:3,306
12 (Bonnyville)	13	43,277	1:3,329
13 (Whitecourt)	14	57,521	1:4,109
14 (Hinton)	8	25,784	1:3,223
15 (Banff)	10	26,539	1:2,654
16 (Fort McMurray)	17	49,490	1:2,911
17 (High Level)	10	48,962	1:4,896
18 (Grande Cache)	6	13,979	1:2,330
19 (Grande Prairie)	38	74,855	1:1,970
Census Metropolitan Area (CMA) of Calgary	412	754,033	1:1,830
Census Metropolitan Area (CMA) of Edmonton	553	839,924	1:1,519
Provincial Total	1,329	2,545,553	1:1,915

¹ Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Medical Radiation Technologists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	412	754,033	1:1,830
Census Metropolitan Area (CMA) of Edmonton	553	839,924	1:1,519
10,000 to 69,999			
Camrose	7	13,420	1:1,917
Fort McMurray	14	34,706	1:2,479
Grande Prairie	23	28,271	1:1,229
Lethbridge	46	60,974	1:1,326
Lloydminster	3	10,042	1:3,347
Medicine Hat	22	43,625	1:1,983
Red Deer	37	58,134	1:1,571
Wetaskiwin	6	10,634	1:1,772
4,800 to 9,999			
Banff	4	5,688	1:1,422
Bonnyville	3	5,132	1:1,711
Brooks	6	9,433	1:1,572
Canmore	2	5,681	1:2,841
Coaldale	3	5,310	1:1,770
Crowsnest Pass	2	6,769	1:3,385
Drumheller	4	6,277	1:1,569
Edson	4	7,323	1:1,831
High River	6	6,269	1:1,045
Hinton	4	9,046	1:2,262
Innisfail	4	5,700	1:1,425
Lacombe	5	6,934	1:1,387
Okotoks	3	6,720	1:2,240
Olds	4	5,542	1:1,386
Peace River	4	6,717	1:1,679
Ponoka	3	5,861	1:1,954
Rocky Mountain House	4	5,461	1:1,365
Slave Lake	2	5,607	1:2,804
St. Paul	4	4,881	1:1,220
Stettler	4	4,947	1:1,237
Taber	4	6,660	1:1,665
Vegreville	4	5,138	1:1,285
Whitecourt	4	6,938	1:1,735
Under 4,800	119	547,756	1:4,603
Provincial Total	1,329	2,545,553	1:1,915

¹ Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Medical Radiation Technologists in Alberta,
1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	1,268	1,293	1,311
% Change in Number of Registered Personnel	0.4%	2.0%	1.4%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,911	1:1,912	1:1,915

IV. Educational Programs

Medical radiation technologists are trained in one of three areas: radiography (medical x-ray technology), radiation therapy (oncology), and nuclear medical technology.

Radiography: Seven training hospitals in Calgary, Edmonton and Red Deer, in conjunction with the Northern Alberta Institute of Technology, offer a two-year medical x-ray technology diploma program. There were 46 graduates in 1990-91.

Radiation Therapy: A 27-month program is offered at the Cross Cancer Institute in Edmonton and the Tom Baker Cancer Centre in Calgary. These programs produced seven graduates in 1990-91.

Nuclear Medical Technology: A two-year program is offered by the Southern Alberta Institute of Technology in conjunction with the University of Alberta Hospitals in Edmonton and the Foothills Hospital in Calgary. The program produced 14 graduates in 1990-91.

¹ Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31 of the indicated year.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Medical Radiation Technologists in Alberta¹

	1988-89	1989-90	1990-91
A. Medical X-Ray Technology Diploma			
Northern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	48	49	52
2nd Year	46	46	47
Graduates:	45	44	46
B. Radiation Oncology Technology Diploma			
Cross Cancer Institute (Program Length: 27 months)			
Enrolments:			
1st Year	5	6	5
2nd Year ²	6	5	6
Graduates:	2	5	4
Tom Baker Cancer Centre (Program Length: 27 months)			
Enrolments:			
1st Year	4	4	2
2nd Year	—	4	4
3rd Year	3	—	4
Graduates:	3	—	3
Provincial Total			
Number of Programs in Radiation Oncology: 2			
Graduates:	5	5	7
C. Nuclear Medical Technology Diploma			
Southern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	15	16	16
2nd Year	15	15	14
Graduates:	10	15	14

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Includes students in their second and later years of the program.

Occupational Hygienists and Occupational Hygiene Technologists

I. Overview

Definition: **Occupational Hygienists**

Study, evaluate and conduct health programs to control those environmental factors or stresses arising in a work situation which may cause sickness, injury or significant discomfort and inefficiency among workers. Collect, measure and analyze samples of dust, gases, vapors and other potentially-toxic materials to determine adherence to prescribed standards. Investigate adequacy of ventilation, exhaust equipment, lighting and other conditions which may affect employee health. Perform sound-level evaluations to determine relationship of noise to employee discomfort and efficiency. Collaborate with other scientists and engineers to institute control and remedial measures for potentially hazardous conditions and equipment. Prepare reports, and make recommendations for control and correction of hazards. Participate in educational meetings to instruct employees in matters pertaining to occupational health. Supervise and co-ordinate the work of technologists and technicians.

Source: Canadian Classification and Dictionary of Occupations. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Occupational Hygiene Technologists

Under the supervision of occupational hygienists, study, evaluate and conduct health programs to control those environmental factors or stresses arising in a work situation which may cause sickness, injury or significant discomfort and inefficiency among workers. Collect, measure and analyze samples of dust, gases, vapors and other potentially toxic materials to determine adherence to prescribed standards. Investigate adequacy of ventilation, exhaust equipment, lighting and other conditions which may affect employee health. Perform sound-level evaluations to determine relationship of noise to employee discomfort and efficiency. Collaborate with other scientists and engineers to institute control and correction of hazards. Participate in education meetings to instruct employees in matters pertaining to occupational health.

(Source: Department of Health, Government of Alberta)

Since registration with the Alberta section of the American Industrial Hygiene Association is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were a total of 136 occupational hygienists and occupational hygiene technologists practising in Alberta in 1991.¹ Occupational hygienists and occupational hygiene technologists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 82 percent of the total. The provincial occupational hygienist and occupational hygiene technologist-to-population ratio was 1:18,717 in 1991.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

American Industrial Hygiene Association
(Alberta Section)
P.O. Box 1803, Station "M"
Calgary, Alberta
T2P 2L8

President: Mr. Bernard Bradford

c) Legislation:

There is no legislation regulating occupational hygienists or occupational hygiene technologists in Alberta at present.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Occupational Hygienists
and Occupational Hygiene Technologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	1	58,179	1:58,179
2 (Lethbridge)	5	119,110	1:23,822
3 (Pincher Creek)	1	36,149	1:36,149
4 (Hanna)	0	11,947	—
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	8	124,098	1:15,512
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	0	78,483	—
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	0	43,277	—
13 (Whitecourt)	0	57,521	—
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	7	49,490	1:7,070
17 (High Level)	1	48,962	1:48,962
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	1	74,855	1:74,855
Census Metropolitan Area (CMA) of Calgary	34	754,033	1:22,177
Census Metropolitan Area (CMA) of Edmonton	78	839,924	1:10,768
Provincial Total	136	2,545,553	1:18,717

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Occupational Hygienists and Occupational Hygiene Technologists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	34	754,033	1:22,177
Census Metropolitan Area (CMA) of Edmonton	78	839,924	1:10,768
10,000 to 69,999			
Camrose	0	13,420	—
Fort McMurray	7	34,706	1:4,958
Grande Prairie	1	28,271	1:28,271
Lethbridge	5	60,974	1:12,195
Lloydminster	0	10,042	—
Medicine Hat	0	43,625	—
Red Deer	8	58,134	1:7,267
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	0	5,132	—
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	3	547,756	1:182,585
Provincial Total	136	2,545,553	1:18,717

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Occupational Hygienists and Occupational Hygiene Technologists in Alberta, 1989, 1990, And 1991

	1989	1990	1991
Number of Practising Personnel ¹	N/A	116	136
% Change in Number of Practising Personnel	N/A	N/A	17.2%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	N/A	1:21,307	1:18,717

IV. Educational Programs

Mount Royal College offers both a certificate program and a diploma program in occupational hygiene technology. In 1990-91, there was one graduate from the certificate program and nine graduates from the diploma program. Occupational hygienists are graduates of baccalaureate programs in physical or applied science.

Table 3
Educational Program for Occupational Hygiene Technologists in Alberta³

	1988-89	1989-90	1990-91
Occupational Hygiene Technology Certificate⁴/Diploma			
Mount Royal College			
Program Length: (Certificate: 1 year)			
(Diploma: 2 years)			
Enrolments:			
1st Year ⁵	14	13	11
2nd Year	12	11	13
Graduates:			
Certificate	2	1	1
Diploma	9	8	9

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

⁴ Certificate program commenced in 1987-88.

⁵ Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

Occupational Therapists

I. Overview

Definition: Plan and carry out treatment programs based on activities such as work, education and recreation to rehabilitate physically and mentally disabled persons. Administer tests and observe patients to assess their emotional, mental and physical capacities. Plan and direct programs in manual and creative arts, industrial and vocational skills, recreational activities, remedial games, cultural and educational interests and play activities for children. Conduct group programs to assist patients in building self-confidence and in adjusting to family and community. Train handicapped patients in self-care and daily living activities. Advise and instruct patients on specially adapted household equipment and furnishings. Assess patient's vocational potential and provide work adjustment and actual work experience. Participate in testing and training of patients with perceptual motor problems and provide training for children with learning disabilities. Record patient's activities, response and progress. Attend meetings of rehabilitation team and seminars, workshops and courses on occupational therapy. Supervise and instruct occupational therapy students and auxiliary personnel assigned to department.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

The Alberta Association of Registered Occupational Therapists reported there were 599 active occupational therapists registered and residing in Alberta as of December 31, 1991.¹

According to a survey of health and social service personnel working in Alberta, 51 percent of occupational therapists were employed in acute care hospitals, 12 percent in auxiliary hospitals, seven percent in health units, nine percent in nursing homes and six percent by school boards and in schools for the handicapped.² Occupational therapists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 82 percent of the total registered with the Association. The provincial occupational therapist-to-population ratio was 1:4,250 in 1991.

¹ Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1991. Excludes honorary and student members.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Association of Registered
Occupational Therapists
#311, 4245 - 97 Street
Edmonton, Alberta
T6E 5Y7

Executive Director: Mr. John Voyer
Registrar: Ms. Betty Lou Smathers
President: Ms. Lorian Kennedy

b) Legislation:

The Occupational Therapy Profession Act received royal assent in 1987 and was proclaimed in the Spring of 1990 when regulations were approved. The Act grants the Alberta Association of Registered Occupational Therapists the responsibility for registration, practice review and discipline. The Universities Coordinating Council has the authority to approve educational programs, and the examination for registration purposes. In addition, the Council determines equivalencies of programs which have not been approved. The Act reserves the title "occupational therapists," alone or in combination with any other words, for registered members.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Occupational Therapists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	13	58,179	1:4,475
2 (Lethbridge)	13	119,110	1:9,162
3 (Pincher Creek)	2	36,149	1:18,075
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	4	39,658	1:9,915
6 (Calgary excluding CMA)	4	50,769	1:12,692
7 (Stettler)	2	39,694	1:19,847
8 (Red Deer)	21	124,098	1:5,909
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	5	78,483	1:15,697
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	5	43,277	1:8,655
13 (Whitecourt)	3	57,521	1:19,174
14 (Hinton)	1	25,784	1:25,784
15 (Banff)	3	26,539	1:8,846
16 (Fort McMurray)	1	49,490	1:49,490
17 (High Level)	1	48,962	1:48,962
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	21	74,855	1:3,565
Census Metropolitan Area (CMA) of Calgary	188	754,033	1:4,011
Census Metropolitan Area (CMA) of Edmonton	302	839,924	1:2,781
Location Unknown	3	—	—
Provincial Total	599	2,545,553	1:4,250

¹ Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1991. Excludes honorary and student members.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Occupational Therapists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	188	754,033	1:4,011
Census Metropolitan Area (CMA) of Edmonton	302	839,924	1:2,781
10,000 to 69,999			
Camrose	1	13,420	1:13,420
Fort McMurray	1	34,706	1:34,706
Grande Prairie	16	28,271	1:1,767
Lethbridge	13	60,974	1:4,690
Lloydminster	0	10,042	—
Medicine Hat	11	43,625	1:3,966
Red Deer	12	58,134	1:4,845
Wetaskiwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	1	5,132	1:5,132
Brooks	0	9,433	—
Canmore	1	5,681	1:5,681
Coaldale	0	5,310	—
Crowsnest Pass	1	6,769	1:6,769
Drumheller	1	6,277	1:6,277
Edson	0	7,323	—
High River	2	6,269	1:3,135
Hinton	1	9,046	1:9,046
Innisfail	0	5,700	—
Lacombe	3	6,934	1:2,311
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	1	6,717	1:6,717
Ponoka	2	5,861	1:2,931
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	1	4,881	1:4,881
Stettler	1	4,947	1:4,947
Taber	0	6,660	—
Vegreville	1	5,138	1:5,138
Whitecourt	0	6,938	—
Under 4,800	31	547,756	1:17,670
Location Unknown	3	—	—
Provincial Total	599	2,545,553	1:4,250

¹ Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1991. Excludes honorary and student members.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Occupational Therapists in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	423 ¹	581 ²	599 ²
% Change in Number of Registered Personnel	-0.5%	37.4%	3.1%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio:— Alberta	1:5,728	1:4,254	1:4,250

IV. Educational Programs

A four-year bachelor of science program in occupational therapy is offered at the University of Alberta. In addition to the basic route, an accelerated route was introduced, in 1986-87, for three years. In the accelerated route, entry is made in the third year and studies are completed in 24 continuous months. The program produced 40 graduates in 1990-91. Under an interprovincial training agreement, ten training places per year are reserved for Saskatchewan students in this program.

In addition, a two-year master of science program in occupational therapy commenced at the University of Alberta in 1986-87. The program produced five graduates in 1990-91.

Table 3
Educational Programs for Occupational Therapists in Alberta⁴

	1988-89	1989-90	1990-91
A. Baccalaureate Program			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year		Pre Professional Year	
2nd Year	40	41	81
3rd Year	79	40	62
4th Year	77	78	50
Graduates:	77	68	40
B. Master's Program			
University of Alberta			
(Program Length: 2 years)			
Enrolments:	14	10	16
Graduates:	3	3	5

¹ Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of January 31 of the indicated year. Excludes honorary and student members.

² Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31 of the indicated year. Excludes honorary and student members.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Ophthalmic Dispensers/Opticians

I. Overview

Definition: An ophthalmic dispenser supplies, prepares, or dispenses ophthalmic appliances; interprets prescriptions from ophthalmologists or optometrists in respect of ophthalmic appliances; fits, adjusts and adapts ophthalmic appliances to the needs of the intended wearer in accordance with a prescription from an ophthalmologist or optometrist, or without a prescription where lenses are duplicated with no change in their refractive value. It does not include refraction, providing a prescription, or diagnosing a condition.

(Source: The Opticians Act, S.A. 1992)

There were 488 ophthalmic dispensers who resided in Alberta and registered with the Alberta Guild of Ophthalmic Dispensers in 1991.¹ Ophthalmic dispensers located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 78 percent of the total. The provincial ophthalmic dispenser-to-population ratio was 1:5,216 in 1991.

The services provided by ophthalmic dispensers are also part of the services provided by optometrists (see chapter on Optometrists).

¹ Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31, 1991.

II. Professional Association and Legislation Information

a) Certification Authority (until 1992):

Ophthalmic Dispensers Examining Board
c/o Professions and Occupations Bureau
5th Floor, Kensington Place
10011 - 109 Street
Edmonton, Alberta

T5J 3S8

Chairman: Dr. Henry Wyatt

b) Professional Association/Registration Body (effective July 1992):

Alberta Opticians Association
#305, 10665 Jasper Avenue
Edmonton, Alberta
T5J 3S9

Executive Director: Mr. Drew Jeffries

Registrar: Ms. Jean Kolish

President: Mr. Murray Scambler

c) Legislation:

Until July 1992, ophthalmic dispensers were governed by the Ophthalmic Dispensers Act. Under that act, all individuals who wished to practise as ophthalmic dispensers had to apply for and receive a certificate of competency from the Ophthalmic Dispensers Examining Board, a provincial government certification body. The Board set the educational qualifications and examinations required for obtaining a certificate of competency, or a special certificate of competency to dispense contact lenses.

The Ophthalmic Dispensers Act was substantially amended at the 1992 spring session of the legislature and its new title is the Opticians Act. The act reserves the titles "optician" and "registered optician" in addition to "ophthalmic dispenser," "registered ophthalmic dispenser" and "optical dispenser" which had been designated under the previous act.

The name of the professional body has been changed to the Alberta Opticians Association. Under the amended act it has responsibility for registration, discipline and practice review of its members. The Act grants the Universities Coordinating Council (UCC) authority to approve educational programs, set the term of practical experience, and set or approve the examinations required for registration. These were functions previous undertaken by the Ophthalmic Dispensers Examining Board. The UCC also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Ophthalmic Dispensers/Opticians, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	11	58,179	1:5,289
2 (Lethbridge)	25	119,110	1:4,764
3 (Pincher Creek)	1	36,149	1:36,149
4 (Hanna)	0	11,947	—
5 (Drumheller)	4	39,658	1:9,915
6 (Calgary excluding CMA)	5	50,769	1:10,154
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	22	124,098	1:5,641
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	4	78,483	1:19,621
11 (Edmonton excluding CMA)	1	36,368	1:36,368
12 (Bonnyville)	3	43,277	1:14,426
13 (Whitecourt)	4	57,521	1:14,380
14 (Hinton)	3	25,784	1:8,595
15 (Banff)	0	26,539	—
16 (Fort McMurray)	5	49,490	1:9,898
17 (High Level)	2	48,562	1:24,481
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	12	74,855	1:6,238
Census Metropolitan Area (CMA) of Calgary	143	754,033	1:5,273
Census Metropolitan Area (CMA) of Edmonton	239	839,924	1:3,514
Provincial Total	488	2,545,553	1:5,216

¹ Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Ophthalmic Dispensers/Opticians, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	143	754,033	1:5,273
Census Metropolitan Area (CMA) of Edmonton	239	839,924	1:3,514
10,000 to 69,999			
Camrose	1	13,420	1:13,420
Fort McMurray	4	34,706	1:8,677
Grande Prairie	9	28,271	1:3,141
Lethbridge	20	60,974	1:3,049
Lloydminster	1	10,042	1:10,042
Medicine Hat	10	43,625	1:4,363
Red Deer	18	58,134	1:3,230
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	0	5,132	—
Brooks	2	9,433	1:4,717
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	2	6,277	1:3,139
Edson	2	7,323	1:3,662
High River	1	6,269	1:6,269
Hinton	0	9,046	—
Innisfail	1	5,700	1:5,700
Lacombe	1	6,934	1:6,934
Okotoks	2	6,720	1:3,360
Olds	1	5,542	1:5,542
Peace River	2	6,717	1:3,359
Ponoka	1	5,861	1:5,861
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	2	4,881	1:2,441
Stettler	1	4,947	1:4,947
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	24	547,756	1:22,823
Provincial Total	488	2,545,553	1:5,216

¹ Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Ophthalmic Dispensers/Opticians
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	419	459	488
% Change in Number of Registered Personnel	8.5%	9.5%	6.3%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:5,783	1:5,385	1:5,216

IV. Educational Programs

Since 1986, the Northern Alberta Institute of Technology has offered programs for two levels of ophthalmic dispensing: eyeglasses and contact lenses. Individuals enrolled in the courses must serve a two-year apprenticeship in an optical laboratory or dispensary concurrent with their studies. Each course is two years in length and consists of independent study plus lectures in Edmonton and Calgary. The course in eyeglasses is a pre-requisite for the one in contact lenses. Following these courses, individuals must write the examination approved by the Ophthalmic Dispensers Examining Board or the Universities Coordinating Council. In May 1991, there were 64 graduates from the course in eyeglasses and six from the course in contact lenses.

Table 3
Educational Programs for Ophthalmic Dispensers/Opticians in Alberta³

	1988-89	1989-90	1990-91
Northern Alberta Institute of Technology			
Eyeglass Dispensing			
(Program Length: 2 years)			
Independent Study			
Enrolments:			
1st Year	89	73	73
2nd Year	62	70	70
Graduates:	49	61	64
Northern Alberta Institute of Technology			
Contact Lens Dispensing			
(Program Length: 2 years)			
Independent Study			
Enrolments:			
1st Year	8	10	10
2nd Year	8	6	8
Graduates:	7	5	6
Provincial Total			
Number of Training Programs: 2			
Graduates:	56	66	70

¹ Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31 of the indicated year.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: Northern Alberta Institute of Technology, Edmonton, June 1991.

Optometrists

I. Overview

Definition: A person engaged in the practice of optometry.

"Practice of optometry" means:

- i) the examination of the human eye, its related structures and the human vision system in order to measure, assess, diagnose or refer for consultation or treatment any condition of the human eye, its related structures and the human vision system;
- ii) the treatment of conditions of the human eye, its related structures and the human vision system, through the prescribing and dispensing of ophthalmic appliances or other aids, the prescribing and provision of orthoptics or perceptual training and the offering of advice, consultation or counselling.

(Source: Optometry Profession Act, S.A. 1983, Ch. 0-16)

There were 215 optometrists who resided in Alberta and registered with the Alberta Association of Optometrists (AAO) in 1991.¹ Optometrists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 66 percent of the total. Some optometrists in the larger urban centres operate satellite offices in neighboring rural areas and smaller centres throughout the province. Some of the services provided by optometrists, such as the dispensing of ophthalmic appliances, can also be provided by ophthalmic dispensers (see chapter on Ophthalmic Dispensers). The provincial optometrist-to-population ratio was 1:11,840 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Authority:

Alberta Association of Optometrists
#902, 11830 Kingsway Avenue
Edmonton, Alberta
T5G 0X5

Executive Director: Mr. R. Glenn Campbell
President: Dr. Jerry D. Berg
President Elect: Dr. John A. Baker

b) Legislation:

Under the authority of the Optometry Profession Act, all individuals who wish to practise as optometrists and use this title must apply for registration with the Alberta Association of Optometrists (AAO). The academic qualifications required for registration are set out in regulation. The Universities Coordinating Council evaluates educational qualifications and prescribes examinations for registration.

Besides registration, the AAO is also responsible for discipline and practice review of its members.

¹ Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31, 1991. Excludes honorary, inactive and retired members.

Amendments to the Optometry Profession Act were approved at the 1992 spring session of the legislature. The name of the governing body responsible for registration, practice review and discipline has been changed to the Alberta College of Optometrists. The Alberta Association of Optometrists will become the organization responsible for member-interest functions such as fee negotiations.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Optometrists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	3	58,179	1:19,393
2 (Lethbridge)	13	119,110	1:9,162
3 (Pincher Creek)	2	36,149	1:18,075
4 (Hanna)	1	11,947	1:11,947
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	3	50,769	1:16,923
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	16	124,098	1:7,756
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	5	78,483	1:15,697
11 (Edmonton excluding CMA)	1	36,368	1:36,368
12 (Bonnyville)	4	43,277	1:10,819
13 (Whitecourt)	4	57,521	1:14,380
14 (Hinton)	2	25,784	1:12,892
15 (Banff)	2	26,539	1:13,270
16 (Fort McMurray)	2	49,490	1:24,745
17 (High Level)	2	48,962	1:24,481
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	9	74,855	1:8,317
Census Metropolitan Area (CMA) of Calgary	71	754,033	1:10,620
Census Metropolitan Area (CMA) of Edmonton	72	839,924	1:11,666
Provincial Total	215	2,545,553	1:11,840

¹ Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31, 1991. Excludes honorary, inactive and retired members.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Optometrists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	71	754,033	1:10,620
Census Metropolitan Area (CMA) of Edmonton	72	839,924	1:11,666
10,000 to 69,999			
Camrose	3	13,420	1:4,473
Fort McMurray	2	34,706	1:17,353
Grande Prairie	6	28,271	1:4,712
Lethbridge	11	60,974	1:5,543
Lloydminster	1	10,042	1:10,042
Medicine Hat	3	43,625	1:14,542
Red Deer	12	58,134	1:4,845
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	0	5,132	—
Brooks	1	9,433	1:9,433
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	1	7,323	1:7,323
High River	2	6,269	1:3,135
Hinton	1	9,046	1:9,046
Innisfail	0	5,700	—
Lacombe	2	6,934	1:3,467
Okotoks	0	6,720	—
Olds	1	5,542	1:5,542
Peace River	2	6,717	1:3,359
Ponoka	2	5,861	1:2,931
Rocky Mountain House	0	5,461	—
Slave Lake	1	5,607	1:5,607
St. Paul	2	4,881	1:2,441
Stettler	1	4,947	1:4,947
Taber	1	6,660	1:6,660
Vegreville	1	5,138	1:5,138
Whitecourt	1	6,938	1:6,938
Under 4,800	14	547,756	1:39,125
Provincial Total	215	2,545,553	1:11,840

¹ Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31, 1991. Excludes honorary, inactive and retired members.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Optometrists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	212	216	215
% Change in Number of Registered Personnel	-1.4%	1.9%	-0.5%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratios:			
— Alberta	1:11,429	1:11,442	1:11,840
— Western Canada ³	1:12,268	1:12,245	—

IV. Educational Programs

There is no training program for optometrists in Alberta. However, since 1976, Alberta, Saskatchewan, and Manitoba have had an inter-provincial training agreement with the School of Optometry at the University of Waterloo and the Government of Ontario. Under this agreement, the three western provinces annually purchase 13 training places (seven places for Alberta; three places for Saskatchewan; and three places for Manitoba) in the four-year program.

On April 30, 1991 the agreement with the University of Waterloo and the Government of Ontario expired. Currently a similar agreement is being negotiated.

Pre-requisite for admission into the School of Optometry is two years of pre-optometry training (or equivalent courses in the sciences, including physics, mathematics, biology, zoology, chemistry, and psychology). In 1991, Alberta had a total of 22 students enrolled in the four-year training program at the University of Waterloo. Four students graduated in 1990-91.

In addition to the University of Waterloo, a program in optometry is offered in French at the University of Montreal. The Western provinces have no inter-provincial training agreements with the University of Montreal.

¹ Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31 of the indicated year. Excludes honorary, inactive and retired members.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined. Health and Welfare Canada, July 1992.

Pharmacists

I. Overview

Definition: Compound and dispense prescribed pharmaceuticals and related preparations. Prepare or supervise preparation of liquid medicines, ointments, powders, pills and other medications. Check prescriptions for overdoses and drug interactions. Weigh, measure and mix drugs and other medicinal compounds and fill bottles and capsules with correct quantity and composition of preparation. Store and preserve biologicals, vaccines, serums and other drugs to prevent deterioration. Dispense medical and surgical products for internal and external use as prescribed. Maintain patient medication profiles and record prescriptions dispensed and poisons and narcotics issued. Order and maintain stock of pharmaceutical supplies. Provide information on uses and effects of medicaments. Sell non-prescription drugs, sick-room supplies, toiletries, cosmetics, lotions and other commercial products.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 2,275 pharmacists who resided in Alberta and registered with the Alberta Pharmaceutical Association (APhA) in 1991.¹ According to a survey of health and social service personnel working in Alberta, 81 percent of pharmacists practised in community pharmacies, while 17 percent were employed in hospital settings.² Pharmacists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 67 percent of the total. The provincial pharmacist-to-population ratio was 1:1,119 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Licensing Body:

Alberta Pharmaceutical Association
10615 - 124 Street
Edmonton, Alberta
T5N 1S5

Registrar-Treasurer: Mr. Greg E. Eberhart
President: Ms. Donna Kowalishin

b) Legislation:

Under the authority of the Pharmaceutical Association Act, all individuals who wish to practise as pharmacists must register with the Alberta Pharmaceutical Association (APhA).

The APhA is responsible for regulating the conduct of its members and for maintaining discipline. The Pharmaceutical Association Act sets the educational qualifications required for registration with the APhA.

A new Pharmaceutical Profession Act was passed at the 1988 spring session of the legislature. This Act will be proclaimed when new regulations are approved, probably in 1992.

¹ Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Pharmacists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	55	58,179	1:1,058
2 (Lethbridge)	113	119,110	1:1,054
3 (Pincher Creek)	28	36,149	1:1,291
4 (Hanna)	9	11,947	1:1,327
5 (Drumheller)	29	39,658	1:1,368
6 (Calgary excluding CMA)	30	50,769	1:1,692
7 (Stettler)	32	39,694	1:1,240
8 (Red Deer)	130	124,098	1:955
9 (Rocky Mountain House)	7	16,734	1:2,391
10 (Camrose)	67	78,483	1:1,171
11 (Edmonton excluding CMA)	20	36,368	1:1,818
12 (Bonnyville)	39	43,277	1:1,110
13 (Whitecourt)	44	57,521	1:1,307
14 (Hinton)	18	25,784	1:1,432
15 (Banff)	29	26,539	1:915
16 (Fort McMurray)	28	49,490	1:1,768
17 (High Level)	16	48,962	1:3,060
18 (Grande Cache)	6	13,979	1:2,330
19 (Grande Prairie)	57	74,855	1:1,313
Census Metropolitan Area (CMA) of Calgary	650	754,033	1:1,160
Census Metropolitan Area (CMA) of Edmonton	868	839,924	1:968
Provincial Total	2,275	2,545,553	1:1,119

¹ Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Pharmacists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	650	754,033	1:1,160
Census Metropolitan Area (CMA) of Edmonton	868	839,924	1:968
10,000 to 69,999			
Camrose	21	13,420	1:639
Fort McMurray	23	34,706	1:1,509
Grande Prairie	33	28,271	1:857
Lethbridge	77	60,974	1:792
Lloydminster	7	10,042	1:1,435
Medicine Hat	47	43,625	1:928
Red Deer	78	58,134	1:745
Wetaskiwin	15	10,634	1:709
4,800 to 9,999			
Banff	7	5,688	1:813
Bonnyville	10	5,132	1:513
Brooks	10	9,433	1:943
Canmore	10	5,681	1:568
Coaldale	8	5,310	1:664
Crowsnest Pass	7	6,769	1:967
Drumheller	10	6,277	1:628
Edson	7	7,323	1:1,046
High River	4	6,269	1:1,567
Hinton	9	9,046	1:1,005
Innisfail	10	5,700	1:570
Lacombe	12	6,934	1:578
Okotoks	7	6,720	1:960
Olds	6	5,542	1:924
Peace River	7	6,717	1:960
Ponoka	15	5,861	1:391
Rocky Mountain House	7	5,461	1:780
Slave Lake	3	5,607	1:1,869
St. Paul	12	4,881	1:407
Stettler	9	4,947	1:550
Taber	7	6,660	1:951
Vegreville	6	5,138	1:856
Whitecourt	5	6,938	1:1,388
Under 4,800	268	547,756	1:2,044
Provincial Total	2,275	2,545,553	1:1,119

¹ Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APHA and residing in Alberta as of December 31, 1991. Excludes inactive and retired members.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Pharmacists in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	2,152 ¹	2,193 ²	2,275 ¹
% Change in Number of Registered Personnel	3.6%	1.9%	3.7%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,126	1:1,127	1:1,119

IV. Educational Programs

The University of Alberta offers a four-year baccalaureate program in pharmacy. However enrolment into the program is only considered following the completion of a pre-pharmacy year of university. The program produced 114 graduates in 1990-91.

Table 3
Educational Program for Pharmacists in Alberta⁴

	1988-89	1989-90	1990-91
Baccalaureate Program			
University Of Alberta			
(Program Length: 4 Years)			
Enrolments: ⁵			
1st Year	86	112	116
2nd Year	123	85	106
3rd Year	119	131	96
4th Year	104	104	117
Graduates:	103	101	114

¹ Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of December 31 of the indicated year. Excludes inactive and retired members.

² Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of January 29, 1991. Excludes inactive and retired members.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

⁵ Transfer students with credit for first-year course work have been admitted into year two; hence, the discrepancy in enrolment from year to year.

Pharmacy Assistants

I. Overview

Definition: Assist pharmacist in hospital, industrial or retail pharmacy. Compound and mix ointments, solutions, lotions or other medications, according to specific instructions, under supervision of pharmacist. Pre-package drugs. Label drugs, chemicals or other pharmaceutical preparations. Assist with keeping records of narcotics issued and returned. Count drugs issued, keep inventory and prepare orders for suppliers, as approved by the pharmacist. Unpack and store supplies and verify items received against invoices. Wash and sterilize bottles, beakers and other glassware and utensils. Clean pharmacy work area. Answer inquiries and deliver drug items, if required. Compute charges for narcotics and pharmaceuticals dispensed from pharmacy, if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since there is no professional association for pharmacy assistants, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 705 pharmacy assistants practising in Alberta in 1991.¹ Of these, 61 percent were employed in community pharmacies and 36 percent in hospital pharmacies.² Pharmacy assistants employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 68 percent of the total. The number of pharmacy assistants employed in Alberta increased by 16 percent between 1989 and 1991. During the same period the provincial population grew by five percent. The provincial pharmacy assistant-to-population ratio was 1:3,611 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

None.

b) Legislation:

There is no legislation regulating pharmacy assistants in Alberta at present.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Pharmacy Assistants, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	14	58,179	1:4,156
2 (Lethbridge)	29	119,110	1:4,107
3 (Pincher Creek)	6	36,149	1:6,025
4 (Hanna)	4	11,947	1:2,987
5 (Drumheller)	5	39,658	1:7,932
6 (Calgary excluding CMA)	4	50,769	1:12,692
7 (Stettler)	15	39,694	1:2,646
8 (Red Deer)	48	124,098	1:2,585
9 (Rocky Mountain House)	4	16,734	1:4,184
10 (Camrose)	25	78,483	1:3,139
11 (Edmonton excluding CMA)	6	36,368	1:6,061
12 (Bonnyville)	8	43,277	1:5,410
13 (Whitecourt)	4	57,521	1:14,380
14 (Hinton)	5	25,784	1:5,157
15 (Banff)	1	26,539	1:26,539
16 (Fort McMurray)	14	49,490	1:3,535
17 (High Level)	8	48,962	1:6,120
18 (Grande Cache)	2	13,979	1:6,990
19 (Grande Prairie)	21	74,855	1:3,565
Census Metropolitan Area (CMA) of Calgary	211	754,033	1:3,574
Census Metropolitan Area (CMA) of Edmonton	271	839,924	1:3,099
Provincial Total	705	2,545,553	1:3,611

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Pharmacy Assistants, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	211	754,033	1:3,574
Census Metropolitan Area (CMA) of Edmonton	271	839,924	1:3,099
10,000 to 69,999			
Camrose	7	13,420	1:1,917
Fort McMurray	11	34,706	1:3,155
Grande Prairie	16	28,271	1:1,767
Lethbridge	23	60,974	1:2,651
Lloydminster	5	10,042	1:2,008
Medicine Hat	13	43,625	1:3,356
Red Deer	28	58,134	1:2,076
Wetaskiwin	6	10,634	1:1,772
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	3	5,132	1:1,711
Brooks	4	9,433	1:2,358
Canmore	0	5,681	—
Coaldale	1	5,310	1:5,310
Crowsnest Pass	1	6,769	1:6,769
Drumheller	4	6,277	1:1,569
Edson	3	7,323	1:2,441
High River	1	6,269	1:6,269
Hinton	2	9,046	1:4,523
Innisfail	3	5,700	1:1,900
Lacombe	3	6,934	1:2,311
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	3	6,717	1:2,239
Ponoka	8	5,861	1:733
Rocky Mountain House	4	5,461	1:1,365
Slave Lake	0	5,607	—
St. Paul	4	4,881	1:1,220
Stettler	4	4,947	1:1,237
Taber	1	6,660	1:6,660
Vegreville	5	5,138	1:1,028
Whitecourt	0	6,938	—
Under 4,800	60	547,756	1:9,129
Provincial Total	705	2,545,553	1:3,611

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Pharmacy Assistants
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	606	702	705
% Change in Number of Practising Personnel	7.8%	15.8%	0.4%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:3,998	1:3,521	1:3,611

IV. Educational Programs

In 1976, a ten-month program leading to a pharmacy technician certificate was established at Red Deer College. The program produced 39 graduates in 1990–91. Before the program was offered, most pharmacy assistants in Alberta were trained on the job.

Table 3
Educational Program for Pharmacy Assistants in Alberta³

	1988–89	1989–90	1990–91
Pharmacy Technician Certificate			
Red Deer College			
(Program Length: 10 months)			
Enrolments:	44	45	45
Graduates:	42	42	39

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Physical Therapists

I. Overview

Definition: Plan and carry out programs of physical treatment, in consultation with physicians and other health care workers, to rehabilitate injured or disabled patients. Administer muscle, nerve, joint and functional ability tests to identify physical problems of patient. Assess patient's symptoms and capabilities. Direct and aid patients individually or in groups, in activities designed to assist in muscle restoration and joint mobility. Guide patient in remedial activities involving use of parallel bars, weights, traction and other equipment. Give whirlpool and contrast baths and apply moist packs. Administer treatments using diathermy, ultrasonic and microwave machines, infra-red and ultra-violet lamps, low-voltage generators and other electrotherapeutic equipment. Instruct patients and their families in procedures to be continued at home. Record treatments given and patient's response and progress.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,280 licensed physical therapists who resided in Alberta and registered with the College of Physical Therapists in 1991.¹ According to a survey conducted by the Alberta Health and Social Services Disciplines Committee, 40 percent of the practitioners were employed in acute care hospitals while 42 percent were in private practice.² Physical therapists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 77 percent of the total. The provincial physical therapist-to-population ratio was 1:1,989 in 1991.

¹ Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College of Physical Therapists and residing in Alberta as of December 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

College of Physical Therapists of Alberta
#302, 6020 - 104 Street
Edmonton, Alberta
T6H 5S4

Registrar: Ms. JoAnne Horne
President: Mr. Peter Noel-Bentley

b) Professional Association:

Alberta Physiotherapy Association
5241 Calgary Trail Southbound N.W.
Edmonton, Alberta
T6H 5G8

President: Ms. Barb Rothe

c) Legislation:

Physical therapists are regulated under the Physical Therapy Profession Act which was proclaimed in 1985. The Act reserves the titles "physical therapist" or "physiotherapist" alone or in combination with other words. In addition, no person except a physical therapist shall use the name "physical therapy" or "physiotherapy" or any abbreviation or in combination with any other word to describe or refer to his practice, occupation, profession or business. Employers may only hire registered members to perform physical therapy services.

The College of Physical Therapists of Alberta is responsible for registration of members, maintaining professional discipline and practice review. The Act sets out the educational requirements for registration. The Universities Coordinating Council evaluates the educational qualifications and determines equivalencies required for registration.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Physical Therapists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	26	58,179	1:2,238
2 (Lethbridge)	38	119,110	1:3,134
3 (Pincher Creek)	8	36,149	1:4,519
4 (Hanna)	3	11,947	1:3,982
5 (Drumheller)	6	39,658	1:6,610
6 (Calgary excluding CMA)	15	50,769	1:3,385
7 (Stettler)	11	39,694	1:3,609
8 (Red Deer)	58	124,098	1:2,140
9 (Rocky Mountain House)	5	16,734	1:3,347
10 (Camrose)	20	78,483	1:3,924
11 (Edmonton excluding CMA)	5	36,368	1:7,274
12 (Bonnyville)	10	43,277	1:4,328
13 (Whitecourt)	13	57,521	1:4,425
14 (Hinton)	6	25,784	1:4,297
15 (Banff)	13	26,539	1:2,041
16 (Fort McMurray)	16	49,490	1:3,093
17 (High Level)	6	48,962	1:8,160
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	32	74,855	1:2,339
Census Metropolitan Area (CMA) of Calgary	444	754,033	1:1,698
Census Metropolitan Area (CMA) of Edmonton	544	839,924	1:1,544
Provincial Total	1,280	2,545,553	1:1,989

¹ Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College of Physical Therapists and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Physical Therapists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	444	754,033	1:1,698
Census Metropolitan Area (CMA) of Edmonton	544	839,924	1:1,544
10,000 to 69,999			
Camrose	6	13,420	1:2,237
Fort McMurray	14	34,706	1:2,479
Grande Prairie	19	28,271	1:1,488
Lethbridge	32	60,974	1:1,905
Lloydminster	3	10,042	1:3,347
Medicine Hat	23	43,625	1:1,897
Red Deer	37	58,134	1:1,571
Wetaskiwin	4	10,634	1:2,659
4,800 to 9,999			
Banff	4	5,688	1:1,422
Bonnyville	2	5,132	1:2,566
Brooks	3	9,433	1:3,144
Canmore	7	5,681	1:812
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	2	6,277	1:3,139
Edson	4	7,323	1:1,831
High River	4	6,269	1:1,567
Hinton	2	9,046	1:4,523
Innisfail	2	5,700	1:2,850
Lacombe	5	6,934	1:1,387
Okotoks	3	6,720	1:2,240
Olds	2	5,542	1:2,771
Peace River	5	6,717	1:1,343
Ponoka	5	5,861	1:1,172
Rocky Mountain House	5	5,461	1:1,092
Slave Lake	1	5,607	1:5,607
St. Paul	1	4,881	1:4,881
Stettler	3	4,947	1:1,649
Taber	0	6,660	—
Vegreville	3	5,138	1:1,713
Whitecourt	3	6,938	1:2,313
Under 4,800	88	547,756	1:6,225
Provincial Total	1,280	2,545,553	1:1,989

¹ Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College of Physical Therapists and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Physical Therapists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	1,185 ¹	1,257 ²	1,280 ²
% Change in Number of Registered Personnel	6.3%	6.1%	1.8%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:2,045	1:1,966	1:1,989

IV. Educational Programs

The University of Alberta offers a four-year baccalaureate program in physical therapy. The program produced 69 graduates in 1990–91. In addition, the University of Alberta offers a master's degree program in physical therapy which is approximately two years in length. The program produced three graduates in 1990–91.

Table 3
Educational Programs for Physical Therapists in Alberta⁴

	1988–89	1989–90	1990–91
A. Baccalaureate Program			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	66	66	66
2nd Year	62	67	66
3rd Year	60	63	62
4th Year ⁵	51	80	75
Graduates:	49	75	69
B. Master's Program			
University of Alberta			
(Program Length: Approx. 2 years)			
Enrolments:			
1st Year	7	6	4
2nd Year	6	5	3
3rd Year	1	2	5
Graduates:	5	2	3

¹ Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College and residing in Alberta as of May 3, 1990.

² Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College and residing in Alberta as of December 31 of the indicated year.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

⁵ Increases in the fourth year enrolments were due to graduates of the diploma program and diploma graduates from foreign institutions returning to complete the baccalaureate degree program.

Physicians

I. Overview

Definition: The work of physicians is concerned with preventing, diagnosing and treating human illnesses. Activities include: conducting medical examinations, making diagnoses, prescribing and giving treatment for diseases, disorders and injuries of the human body and applying preventive medicine as well as rehabilitative techniques; performing surgical operations in the treatment of injuries, diseases and disorders of the human body and engaging in clinical research within the field of activities and scope of competence.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 4,441 physicians who resided in Alberta and registered with the College of Physicians and Surgeons of Alberta in 1991. Of these, 46 percent specialized in some area of medicine.¹ The number of physicians by specialty is shown in Table 4 of this chapter.

Physicians located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 76 percent of the total. Approximately 11 percent were located in communities with a population of between 10,000 and 70,000, five percent were located in communities with a population of between 4,800 and 10,000, and seven percent were located in communities with a population of less than 4,800. The physician-to-population ratio was 1:573 in Alberta in 1991.

¹ Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1992. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

College of Physicians and Surgeons of Alberta
9901 - 108 Street N.W.
Edmonton, Alberta
T5K 1G9

Registrar: Dr. L. R. Ohlhauser

President: Dr. S. M. Malm

b) Professional Association:

Alberta Medical Association
#400, 12230 - 106 Avenue
Edmonton, Alberta
T5N 3Z1

Executive Director: Dr. Robert A. Burns

President: Dr. Ron Fraser

President Elect: Dr. Wayne McNichol

c) Legislation:

Under the authority of the Medical Profession Act, all individuals who wish to practice as physicians or osteopaths must be currently registered with the College of Physicians and Surgeons of Alberta.

Besides registration, the College of Physicians and Surgeons of Alberta is responsible for regulating the conduct of physicians and osteopaths and for maintaining professional discipline. The Medical Profession Act sets the basic educational qualifications required for registration with the College. However, the College sets the post-basic educational qualifications required for registration as a medical specialist and also prescribes the conditions of practice of other physicians registered on special registries.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Physicians, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	85	58,179	1:684
2 (Lethbridge)	186	119,110	1:640
3 (Pincher Creek)	37	36,149	1:977
4 (Hanna)	10	11,947	1:1,195
5 (Drumheller)	30	39,658	1:1,322
6 (Calgary excluding CMA)	53	50,769	1:958
7 (Stettler)	31	39,694	1:1,280
8 (Red Deer)	191	124,098	1:650
9 (Rocky Mountain House)	11	16,734	1:1,521
10 (Camrose)	72	78,483	1:1,090
11 (Edmonton excluding CMA)	24	36,368	1:1,515
12 (Bonnyville)	47	43,277	1:921
13 (Whitecourt)	42	57,521	1:1,370
14 (Hinton)	24	25,784	1:1,074
15 (Banff)	43	26,539	1:617
16 (Fort McMurray)	43	49,490	1:1,151
17 (High Level)	31	48,962	1:1,579
18 (Grande Cache)	10	13,979	1:1,398
19 (Grande Prairie)	83	74,855	1:902
Census Metropolitan Area (CMA) of Calgary	1,512	754,033	1:499
Census Metropolitan Area (CMA) of Edmonton	1,876	839,924	1:448
Provincial Total	4,441	2,545,553	1:573

¹ Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1992. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Physicians, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	1,512	754,033	1:499
Census Metropolitan Area (CMA) of Edmonton	1,876	839,924	1:448
10,000 to 69,999			
Camrose	19	13,420	1:706
Fort McMurray	33	34,706	1:1,052
Grande Prairie	54	28,271	1:524
Lethbridge	148	60,974	1:412
Lloydminster	17	10,042	1:591
Medicine Hat	78	43,625	1:559
Red Deer	122	58,134	1:477
Wetaskiwin	19	10,634	1:560
4,800 to 9,999			
Banff	19	5,688	1:299
Bonnyville	12	5,132	1:428
Brooks	11	9,433	1:858
Canmore	14	5,681	1:406
Coaldale	6	5,310	1:885
Crowsnest Pass	6	6,769	1:1,128
Drumheller	12	6,277	1:523
Edson	8	7,323	1:915
High River	9	6,269	1:697
Hinton	14	9,046	1:646
Innisfail	11	5,700	1:518
Lacombe	12	6,934	1:578
Okotoks	10	6,720	1:672
Olds	5	5,542	1:1,108
Peace River	10	6,717	1:672
Ponoka	27	5,861	1:217
Rocky Mountain House	11	5,461	1:496
Slave Lake	7	5,607	1:801
St. Paul	7	4,881	1:697
Stettler	6	4,947	1:825
Taber	8	6,660	1:833
Vegreville	8	5,138	1:642
Whitecourt	6	6,938	1:1,156
Under 4,800	324	547,756	1:1,691
Provincial Total	4,441	2,545,553	1:573

¹ Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1992. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Physicians
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	4,206 ¹	4,333 ²	4,441 ²
% Change in Number of Registered Personnel	2.8%	3.0%	2.5%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:576	1:570	1:573

IV. Educational Programs

Alberta has two medical schools: one at the University of Alberta in Edmonton, and the other at the University of Calgary. The University of Alberta program is four years in length, based on a nine-month academic year; the University of Calgary program is three years in length, based on a 12-month academic year. Successful completion of a two-year pre-medicine program is the basic entry requirement for both programs. The two programs together produced 182 graduates in 1990-91.

Under the Medical Profession Act, three post-graduate training routes are available for physicians seeking to meet licensure requirements in Alberta. Physicians applying for general licensure must have successfully completed either the certification requirements of a Family Medicine Program approved by the College of Physicians and Surgeons of Alberta, or a two-year pre-licensure training program which meets the requirements specified by the College of Physicians and Surgeons of Alberta. To be licensed as a specialist, the applicant must complete an approved residency training program in an accredited institution and must pass the certification examinations set by the Royal College of Physicians and Surgeons of Canada.

With respect to post-graduate medical training, the Department of Health establishes the number of funded internship/residency positions with the co-operation of the two medical schools. The medical schools, in co-operation with teaching hospitals in Calgary and Edmonton, then apportion the total funded positions among the various medical specialties. During the 1991-92 academic year, 654 full-time-equivalent internship/residency positions in Alberta teaching hospitals were funded by the Department of Health.

¹ Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of January 1, 1990. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

² Source: College of Physicians and Surgeons of Alberta. Number of Physicians registered with the College of Physicians and Surgeons as of February 15, of the indicated year. Excludes out-of-province, retired and non-practising life members, and members on the courtesy or education registries.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Physicians in Alberta¹

	1988-89	1989-90	1990-91
Doctor of Medicine			
University of Alberta (Program Length: 4 years)			
Enrolments:			
1st Year	122	121	120
2nd Year	116	126	123
3rd Year	121	121	124
4th Year	105	126	123
Graduates:	103	116	115
University of Calgary (Program Length: 3 years)			
Enrolments:			
1st Year	75	72	73
2nd Year	69	77	72
3rd Year	77	68	75
Graduates:	69	74	67
Provincial Total			
Number of Training Programs: 2			
Graduates:	172	190	182

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Table 4
Physicians by Specialty and Personnel-to-Population Ratios by Specialty, Alberta, 1991

Specialty	Number of Physicians ¹	Personnel-to-Population Ratio ²
Anaesthesia	185	1:13,760
Anatomical Pathology	53	1:48,029
Cardiology	46	1:55,338
Cardiovascular & Thoracic Surgery	19	1:133,976
Clinical Immunology	2	1:1,272,777
Community Medicine	16	1:159,097
Dermatology	25	1:101,822
Diagnostic Radiology	162	1:15,713
Emergency Medicine	44	1:57,853
Endocrinology/Metabolism	12	1:212,129
Gastroenterology	32	1:79,549
General Pathology	68	1:37,435
General Surgery	170	1:14,974
Geriatric Medicine	7	1:363,650
Haematological Pathology	6	1:424,259
Haematology	13	1:195,812
Infectious Diseases	16	1:159,097
Internal Medicine	388	1:6,561
Medical Biochemistry	4	1:636,388
Medical Microbiology	10	1:254,555
Medical Oncology	7	1:363,650
Nephrology	7	1:363,650
Neurology	49	1:51,950
Neuropathology	6	1:424,259
Neurosurgery	18	1:141,420
Nuclear Medicine	11	1:231,414
Obstetrics & Gynaecology	127	1:20,044
Occupational Medicine	7	1:363,650
Ophthalmology	84	1:30,304
Orthopaedic Surgery	91	1:27,973
Otolaryngology	38	1:66,988
Pediatrics	190	1:13,398
Pediatric Cardiology	2	1:1,272,777
Pediatric General Surgery	5	1:509,111
Pediatric Nephrology	1	1:2,545,553
Pediatric Neurology	1	1:2,545,553
Physical Medicine & Rehabilitation	18	1:141,420
Plastic Surgery	34	1:74,869
Psychiatry	223	1:11,415

¹ Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1992. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

² Source: Ratios calculated using a provincial population of 2,545,553 as of June 1, 1991 - 1991 Census, Statistics Canada.

Table 4 continued
Physicians by Specialty and Personnel-to-Population Ratios by Specialty, Alberta, 1991

Specialty	Number of Physicians ¹	Personnel-to-Population Ratio ²
Radiation Oncology	22	1:115,707
Respiratory Medicine	33	1:77,138
Rheumatology	18	1:141,420
Thoracic Surgery	2	1:1,272,777
Urology	37	1:68,799
Vascular Surgery	5	1:509,111
Total — Specialists ³	2,063	1:1,234
Total — Non-Specialists (Family Physicians, General Practitioners and Others)	2,378	1:1,070
Grand Total	4,441	1:573

¹ Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1992. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

² Source: Ratios calculated using a provincial population of 2,545,553 as of June 1, 1991 – 1991 Census, Statistics Canada.

³ Note: The total number of specialists is less than the sum of the physicians in each specialty because some practitioners hold more than one specialty.

Podiatrists

I. Overview

Definition: A podiatrist treats ailments, diseased conditions, deformities or injuries of the human foot and the leg muscles controlling the foot; examines, diagnoses and treats such ailments, conditions, deformities or injuries but does not treat systemic diseases of bones, muscles or ligaments, or does not use X-ray equipment for purposes other than diagnostic, or does not use anaesthetics other than local.

(Source: Podiatry Act, RSA 1980)

There were 27 podiatrists who resided in Alberta and registered with the Alberta Podiatry Association (APA) in 1991.¹ All were located in five major urban centres: the Census Metropolitan Areas of Calgary and Edmonton, and the cities of Red Deer, Lethbridge and Medicine Hat. The provincial podiatrist-to-population ratio was 1:94,280 in 1991.

¹ Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31, 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Board of Examiners in Podiatry
c/o Professions and Occupations Bureau
5th Floor, Kensington Place
10011 - 109 Street
Edmonton, Alberta
T5J 3S8

b) Professional Association:

Alberta Podiatry Association
#306, 8180 MacLeod Trail S.E.
Calgary, Alberta
T2H 2B8

Registrar: Dr. Gerard Joseph
President: Dr. Jerome M. Greif

c) Legislation:

In Alberta, podiatrists are regulated by the Podiatry Act. In accordance with this statute, individuals who wish to practice as podiatrists in Alberta apply to the Board of Examiners in Podiatry, a provincial certification body. The Board sets the educational qualifications required for registration and certifies eligible individuals. Successful candidates register with the Alberta Podiatry Association (APA), the professional body responsible for registration and discipline of its members.

In June 1987, an amendment to the Podiatry Act removed the exclusive scope of practice clause in order to allow other qualified individuals, such as nurses, to offer foot care services. Although the mandatory requirements of the Act have been removed, individuals who wish to practice podiatry and bill services to the provincial health care insurance program are still required to obtain certification through the Board and maintain membership in the Association.

In 1988, the Alberta Podiatry Association applied to the Health Disciplines Board for designation under the Health Disciplines Act. The Alberta Podiatry Association and the College of Physicians and Surgeons are also discussing the possible inclusion of podiatrists in the Medical Profession Act. The Health Disciplines Board's investigation is on hold pending the outcome of these discussions.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Podiatrists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	1	58,179	1:58,179
2 (Lethbridge)	1	119,110	1:119,110
3 (Pincher Creek)	0	36,149	—
4 (Hanna)	0	11,947	—
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	1	124,098	1:124,098
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	0	78,483	—
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	0	43,277	—
13 (Whitecourt)	0	57,521	—
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	0	49,490	—
17 (High Level)	0	48,962	—
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	0	74,855	—
Census Metropolitan Area (CMA) of Calgary	15	754,033	1:50,269
Census Metropolitan Area (CMA) of Edmonton	9	839,924	1:93,325
Provincial Total	27	2,545,553	1:94,280

¹ Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Podiatrists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	15	754,033	1:50,269
Census Metropolitan Area (CMA) of Edmonton	9	839,924	1:93,325
10,000 to 69,999			
Camrose	0	13,420	—
Fort McMurray	0	34,706	—
Grande Prairie	0	28,271	—
Lethbridge	1	60,974	1:60,974
Lloydminster	0	10,042	—
Medicine Hat	1	43,625	1:43,625
Red Deer	1	58,134	1:58,134
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	0	5,132	—
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	0	547,756	—
Provincial Total	27	2,545,553	1:94,280

¹ Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Podiatrists in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	23	25	27
% Change in Number of Registered Personnel	-4.2%	8.7%	8.0%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio:			
— Alberta	1:105,348	1:98,864	1:94,280
— Western Canada ³	1:100,563	1:103,677	—

IV. Educational Programs

There are no training programs for podiatrists in Canada. The United States has seven schools of podiatry. The programs consist of four years of professional training with four prerequisite years of university studies. All of Alberta's podiatrists were trained in the United States.

¹ Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31 of the indicated year.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: Ratios from the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined. Health and Welfare Canada, July 1992.

Prosthetists and Orthotists

I. Overview

Definition: Design, build, fit and repair prosthetic and orthotic appliances to correct physical defects of human body. Interpret physician's specifications for prosthesis (artificial limb) or orthosis (support or brace). Measure patient for appliance. Design or draw working sketch or model of prosthesis or orthosis required. Build or direct other workers to build prosthetic or orthotic appliance, using materials, such as plastic, wood, leather, steel, aluminium and padding, and machine and hand-tools. Fit patient with appliance and add or remove padding, adjust parts and change tension to achieve maximum comfort and optimum function. Revise working sketch to reflect changes and direct other workers to modify appliance. Advise patient in application, use and care of appliance. Service and repair appliance as necessary.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since registration with the Alberta Association of Prosthetists and Orthotists is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 20 prosthetists and orthotists practising in Alberta in 1991.¹ All the prosthetists and orthotists were employed in the Census Metropolitan Areas of Calgary and Edmonton. These individuals are employed in acute care hospitals, auxiliary hospitals, community agencies and in private practice. The provincial prosthetist/orthotist-to-population ratio was 1:127,278 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Alberta Association of Prosthetists and Orthotists
11024 - 127 Street
Edmonton, Alberta
T5M 0T2

President: Mr. Stan Wlodarczyk

c) Legislation:

There is no legislation regulating prosthetists and orthotists in Alberta at present. In October 1988, the Alberta Association of Prosthetists and Orthotists applied for designation under the Health Disciplines Act. The investigation conducted by the Health Disciplines Board to determine if the discipline should be regulated under the Act is nearing completion.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Prosthetists and Orthotists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	0	58,179	—
2 (Lethbridge)	0	119,110	—
3 (Pincher Creek)	0	36,149	—
4 (Hanna)	0	11,947	—
5 (Drumheller)	0	39,658	—
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	0	39,694	—
8 (Red Deer)	0	124,098	—
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	0	78,483	—
11 (Edmonton excluding CMA)	0	36,368	—
12 (Bonnyville)	0	43,277	—
13 (Whitecourt)	0	57,521	—
14 (Hinton)	0	25,784	—
15 (Banff)	0	26,539	—
16 (Fort McMurray)	0	49,490	—
17 (High Level)	0	48,962	—
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	0	74,855	—
Census Metropolitan Area (CMA) of Calgary	8	754,033	1:94,254
Census Metropolitan Area (CMA) of Edmonton	12	839,924	1:69,994
Provincial Total	20	2,545,553	1:127,278

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Prosthetists and Orthotists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	8	754,033	1:94,254
Census Metropolitan Area (CMA) of Edmonton	12	839,924	1:69,994
10,000 to 69,999			
Camrose	0	13,420	—
Fort McMurray	0	34,706	—
Grande Prairie	0	28,271	—
Lethbridge	0	60,974	—
Lloydminster	0	10,042	—
Medicine Hat	0	43,625	—
Red Deer	0	58,134	—
Wetaskiwin	0	10,634	—
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	0	5,132	—
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	0	4,881	—
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	0	6,938	—
Under 4,800	0	547,756	—
Provincial Total	20	2,545,553	1:127,278

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Prosthetists and Orthotists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	29	26	20
% Change in Number of Practising Personnel	3.6%	-10.3%	-23.1%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:83,552	1:95,062	1:127,278

IV. Educational Programs

There are no formal training programs for prosthetists and orthotists in Alberta. Although many of the prosthetists and orthotists in the province are trained on the job, some have been trained in post-secondary educational institutions in other provinces such as the British Columbia Institute of Technology (BCIT). Alberta has had an inter-provincial training agreement with BCIT and the British Columbia Government to purchase three first-year training places for Alberta students every alternate year. This agreement expired June 30, 1991. Currently, a new agreement with BCIT and the British Columbia Government is being negotiated.

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Psychologists

I. Overview

Definition: Collect, interpret and apply scientific data for the purpose of investigating psychological phenomena and formulating and applying psychological principles and laws in predicting and controlling behaviour in society.

Study human behaviour and mental processes and investigate and recommend or provide treatment of psychological problems. Plan and carry out experiments using human beings and animal subjects, observe behaviour, and measure mental and physical characteristics. Analyze effects of hereditary and environmental factors on individual thought and behaviour. Undertake diagnosis, treatment and prevention of personality disorders and problems of maladjustment to social and occupational environment.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,251 chartered psychologists who resided in Alberta and registered with the Psychologists Association of Alberta (PAA) in 1991.¹ Not all chartered psychologists practise in the health care and social service sector. According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, there were 1,153 psychologists employed in health care and social service agencies and institutions in Alberta in 1991.²

Psychologists in the Census Metropolitan Areas of Calgary and Edmonton accounted for 85 percent of the total registered. The provincial chartered psychologist-to-population ratio was 1:2,035 in 1991.

¹ Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of December 31, 1991. Excludes associate and student members.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Psychologists Association of Alberta
Suite 400, Sunlife Place
10123 - 99 Street
Edmonton, Alberta
T5J 3H1

Executive Director: Dr. A. E. Hohol
Registrar: Dr. Sandra Wolfe
President: Dr. Larry Fong
President Elect: Dr. K. Mothersill

b) Legislation:

Psychologists are governed by the Psychology Profession Act which was proclaimed in March 1987.

Under the new act, the titles "psychologist" and "chartered psychologist" alone or in combination with other words are reserved for registered members. Non-registered members may still practise if this restriction is observed.

In addition, the titles "psychological associate in school psychology" and "psychological assistant" are reserved by regulation. Individuals who use titles which imply they are psychologists are contravening the legislation if they are not registered with the Psychologists Association of Alberta.

The Psychologists Association of Alberta is now responsible for registration, practice review and maintaining professional discipline. The Psychology Profession Act and Regulation set the basic educational qualifications required for registration as a psychologist. The Universities Coordinating Council has the authority to approve academic programs and determine equivalencies for registration as a chartered psychologist.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Psychologists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	9	58,179	1:6,464
2 (Lethbridge)	34	119,110	1:3,503
3 (Pincher Creek)	5	36,149	1:7,230
4 (Hanna)	0	11,947	—
5 (Drumheller)	4	39,658	1:9,915
6 (Calgary excluding CMA)	15	50,769	1:3,385
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	56	124,098	1:2,216
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	4	78,483	1:19,621
11 (Edmonton excluding CMA)	2	36,368	1:18,184
12 (Bonnyville)	6	43,277	1:7,213
13 (Whitecourt)	7	57,521	1:8,217
14 (Hinton)	2	25,784	1:12,892
15 (Banff)	6	26,539	1:4,423
16 (Fort McMurray)	7	49,490	1:7,070
17 (High Level)	3	48,962	1:16,321
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	15	74,855	1:4,990
Census Metropolitan Area (CMA) of Calgary	516	754,033	1:1,461
Census Metropolitan Area (CMA) of Edmonton	548	839,924	1:1,533
Location Unknown	7	—	—
Provincial Total	1,251	2,545,553	1:2,035

¹ Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of December 31, 1991. Excludes associate and student members.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Psychologists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	516	754,033	1:1,461
Census Metropolitan Area (CMA) of Edmonton	548	839,924	1:1,533
10,000 to 69,999			
Camrose	2	13,420	1:6,710
Fort McMurray	5	34,706	1:6,941
Grande Prairie	13	28,271	1:2,175
Lethbridge	32	60,974	1:1,905
Lloydminster	0	10,042	—
Medicine Hat	8	43,625	1:5,453
Red Deer	43	58,134	1:1,352
Wetaskiwin	2	10,634	1:5,317
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	1	5,132	1:5,132
Brooks	1	9,433	1:9,433
Canmore	5	5,681	1:1,136
Coaldale	1	5,310	1:5,310
Crowsnest Pass	0	6,769	—
Drumheller	3	6,277	1:2,092
Edson	1	7,323	1:7,323
High River	4	6,269	1:1,567
Hinton	1	9,046	1:9,046
Innisfail	1	5,700	1:5,700
Lacombe	2	6,934	1:3,467
Okotoks	3	6,720	1:2,240
Olds	3	5,542	1:1,847
Peace River	2	6,717	1:3,359
Ponoka	6	5,861	1:977
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	3	4,881	1:1,627
Stettler	2	4,947	1:2,474
Taber	0	6,660	—
Vegreville	0	5,138	—
Whitecourt	1	6,938	1:6,938
Under 4,800	34	547,756	1:16,110
Location Unknown	7	—	—
Provincial Total	1,251	2,545,553	1:2,035

¹ Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of December 31, 1991. Excludes associate and student members.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Psychologists in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	1,165 ¹	1,187 ²	1,251 ³
% Change in Number of Registered Personnel	-0.8%	1.9%	5.4%
Population (Alberta) ⁴	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:2,080	1:2,082	1:2,035

IV. Educational Programs

There are six master's degree programs in psychology in Alberta: Master of Science at the University of Calgary, Master of Arts and Master of Science at the University of Alberta, Master of Education in Educational Psychology at the University of Alberta and the University of Calgary, and Master of Science in Educational Psychology at the University of Calgary. These programs produced 84 graduates in 1990-91.

In addition, the University of Alberta and the University of Calgary have doctoral programs in both psychology and educational psychology. There were 27 graduates from these programs in 1990-91.

¹ Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of February 5, 1990. Excludes associate and student members.

² Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of March 31, 1991. Excludes associate and student members.

³ Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of December 31, 1991. Excludes associate and student members.

⁴ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Psychologists in Alberta¹

	1988-89	1989-90	1990-91
A. Master's Programs			
University of Alberta			
Master of Arts in Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	5	4	2
2nd Year	0	4	1
3rd Year ²	1	0	1
Graduates:	2	2	1
University of Alberta			
Master of Science in Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	4	5	6
2nd Year	4	5	6
3rd Year ²	1	2	4
Graduates:	2	1	4
University of Alberta			
Master of Education in Educational Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	63	63	38
2nd Year ³	92	93	71
Graduates:	53	39	35
University of Calgary			
Master of Science in Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	8	13	11
2nd Year	10	8	12
3rd Year ²	5	5	8
Graduates:	19	13	11

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Third year refers to students enrolled in third and later years of the program.

³ Second year refers to students enrolled in second and later years of the program.

Table 3 continued
Educational Programs for Psychologists in Alberta¹

	1988-89	1989-90	1990-91
University of Calgary			
Master of Education in Educational Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	18	17	5
2nd Year ²	48	48	40
Graduates:	20	9	18
University of Calgary			
Master of Science in Educational Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	27	25	19
2nd Year ²	37	51	67
Graduates: ³	9	19	15
Provincial Total			
Number of Master's Programs: 6			
Graduates:	105	83	84
B. Doctoral Programs			
University of Alberta			
Ph.D. in Psychology			
(Minimum Program Length: 3 years)			
Enrolments:			
1st Year	4	3	3
2nd Year	4	4	3
3rd Year ⁴	6	5	3
Graduates:	6	1	1

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Second year refers to students enrolled in second and later years of the program.

³ The graduate figures refer to those students who convoked in a given year and do not include students only recommended to pass.

⁴ Third year refers to students enrolled in third and later years of the program.

Table 3 continued
Educational Programs for Psychologists in Alberta¹

	1988-89	1989-90	1990-91
University of Alberta			
Ph.D. in Educational Psychology			
(Maximum Program Length: 6 years) ²			
Enrolments:			
1st Year	31	34	23
2nd Year ³	111	98	66
Graduates:	19	32	17
University of Calgary			
Ph.D. in Psychology			
(Program Length: Approx. 3 years)			
Enrolments:			
1st Year	4	2	4
2nd Year	6	2	3
3rd Year ⁴	8	8	8
Graduates:	6	6	5
University of Calgary			
Ph.D. in Educational Psychology			
(Maximum Program Length: 6 years)			
Enrolments:			
1st Year	10	6	7
2nd Year ³	28	30	33
Graduates:	4	12	4
Provincial Total			
Number of Ph.D. Programs: 4			
Graduates:	35	51	27

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Ph.D. programs require a two-year residency, though the norm for completion is 3 to 4 years.

³ Second year refers to students enrolled in second and later years of the program.

⁴ Third year refers to students enrolled in third and later years of the program.

Public Health Inspectors

I. Overview

Definition: Public Health Inspectors within Alberta are Executive Officers of the Department of Health or the 27 local boards of health and are empowered to enforce the Public Health Act and regulations under the Act. Public Health Inspectors provide advice to the general public, industry, municipal, provincial and federal government agencies on matters pertaining to public and environmental health. They carry out inspections of food establishments, public housing, feed lots, piggeries, fur farms, poultry operations, rabbit keeping operations, recreation areas, work camps, abattoirs, wells, fountains, cisterns, water tanks, public lavatories, solid waste management facilities, institutions, swimming pools, dairies, private housing, public places, and any other place or building where a condition that is or might become injurious or dangerous to the public health, or that might hinder in any manner the prevention or suppression of disease. Public Health Inspectors provide written reports of inspections and where necessary recommend permitting or non-permitting of facilities. Where necessary, Public Health Inspectors may issue an order verbally or in the written form where they have reasonable and probable grounds to believe that a nuisance exists in or on the public place or private place that was the subject of inspection or that the place or the owner of it or any other person is in contravention of the Public Health Act or regulations under the Act. Public Health Inspectors take samples of water, milk, food and air and order chemical, physical or biological tests to determine contamination. Public Health Inspectors carry out investigations into food-borne illnesses, enteric disease, indoor air quality, and other public or environmental health issues. They carry out surveys, environmental health impact assessments and provide service in incidents of natural or man-made disasters such as uncontrolled releases of sour gas and hydrogen sulphide emissions. Public Health Inspectors provide various educational topics to the general public or industry in public or environmental health at public meetings or in an educational setting.

Source: Alberta Health).

Public health inspectors are also known as environmental health officers. They are employed by federal, provincial and municipal governments, by educational institutions, and by private companies involved in food production, petroleum engineering, and pesticide production.

Since registration with the Canadian Institute of Public Health Inspectors is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 119 public health inspectors practising in Alberta in 1991.¹ Public health inspectors employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 57 percent of the total. The provincial public health inspector-to-population ratio was 1:21,391 in 1991.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Certification Board of the Canadian Institute of
Public Health Inspectors
Suite #200, 38 Auriga Drive
Nepean, Ontario
K2E 8A5

Board Chairman: Mr. Bob Carson

b) Professional Association:

Canadian Institute of Public Health Inspectors
(Alberta Branch)
P.O. Box 1928
Hanna, Alberta
T0J 1P0

President: Mr. Murray Lewis

c) Legislation:

Public health inspectors in Alberta are regulated under the Public Health Act. Under the legislation, all individuals who wish to practise as public health inspectors for a local board of health established under the Public Health Act or Health Unit Act must be certified by the Board of Certification of Public Health Inspectors which is administered by the Canadian Institute of Public Health Inspectors. This requirement does not apply to persons who became public health inspectors prior to January 1, 1961 and who have continued in such positions since that date.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Public Health Inspectors, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	4	58,179	1:14,545
2 (Lethbridge)	7	119,110	1:17,016
3 (Pincher Creek)	2	36,149	1:18,075
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	2	39,658	1:19,829
6 (Calgary excluding CMA)	0	50,769	—
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	4	124,098	1:31,025
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	3	78,483	1:26,161
11 (Edmonton excluding CMA)	1	36,368	1:36,368
12 (Bonnyville)	2	43,277	1:21,639
13 (Whitecourt)	2	57,521	1:28,761
14 (Hinton)	3	25,784	1:8,595
15 (Banff)	3	26,539	1:8,846
16 (Fort McMurray)	3	49,490	1:16,497
17 (High Level)	2	48,962	1:24,481
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	7	74,855	1:10,694
Census Metropolitan Area (CMA) of Calgary	26	754,033	1:29,001
Census Metropolitan Area (CMA) of Edmonton	42	839,924	1:19,998
Provincial Total	119	2,545,553	1:21,391

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 18
Community Breakdown of Practising Public Health Inspectors, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	26	754,033	1:29,001
Census Metropolitan Area (CMA) of Edmonton	42	839,924	1:19,998
10,000 to 69,999			
Camrose	1	13,420	1:13,420
Fort McMurray	2	34,706	1:17,353
Grande Prairie	4	28,271	1:7,068
Lethbridge	3	60,974	1:20,325
Lloydminster	0	10,042	—
Medicine Hat	4	43,625	1:10,906
Red Deer	4	58,134	1:14,534
Wetaskiwin	1	10,634	1:10,634
4,800 to 9,999			
Banff	2	5,688	1:2,844
Bonnyville	1	5,132	1:5,132
Brooks	1	9,433	1:9,433
Canmore	1	5,681	1:5,681
Coaldale	2	5,310	1:2,655
Crowsnest Pass	0	6,769	—
Drumheller	2	6,277	1:3,139
Edson	1	7,323	1:7,323
High River	0	6,269	—
Hinton	2	9,046	1:4,523
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	0	5,542	—
Peace River	2	6,717	1:3,359
Ponoka	0	5,861	—
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	1	5,607	1:5,607
St. Paul	1	4,881	1:4,881
Stettler	2	4,947	1:2,474
Taber	1	6,660	1:6,660
Vegreville	1	5,138	1:5,138
Whitecourt	1	6,938	1:6,938
Under 4,800	10	547,756	1:54,776
Provincial total	119	2,545,553	1:21,391

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Public Health Inspectors
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	116	126	119
% Change in Number of Practising Personnel	-12.1%	8.6%	-5.6%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:20,888	1:19,616	1:21,391

IV. Educational Programs

In Canada, only two post-secondary institutions offer formal training programs for public health inspectors. Programs in environmental health are offered at the British Columbia Institute of Technology (BCIT) in Vancouver and Ryerson Polytechnical Institute in Toronto. BCIT offers a two-year diploma program; Ryerson offers a four-year baccalaureate program. Upon completion of two years of training in either of these programs, an individual is eligible to sit for the Board of Certification examination provided he/she has completed 24 weeks of field experience in a local health authority. The certification examination consists of three parts, each of which must be successfully completed to obtain a passing grade. A candidate may attempt the examination only twice.

In Alberta, Athabasca University offers correspondence courses in public health.

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Recreational Therapists

I. Overview

Definition: Through a program of recreational activities, recreational therapists provide goal-oriented treatment services directed to rehabilitation or modification of identified physical, emotional, cognitive and social behaviours. Recreational therapists perform the following tasks: assess individual client's leisure needs; document information (treatment plan, progress and discharge summary) on client's chart; develop individualized client programs focusing on treatment, leisure education and recreation participation; provide opportunities for individual, small and large group participation in regularly scheduled activities and special events; adapt activities to meet individual client's needs; attend rehabilitation team meetings and therapeutic recreation seminars, workshops and courses; supervise and orientate students, auxiliary personnel, and volunteers assigned to the department.

(Source: Alberta Therapeutic Recreation Association, May 1989)

Since registration with the Alberta Therapeutic Recreation Association is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 323 recreational therapists practising in Alberta in 1991.¹ According to the survey, 30 percent of these individuals were employed in nursing homes, 28 percent in acute care hospitals, and 20 percent in auxiliary hospitals.² Recreational therapists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 62 percent of the total. The provincial recreational therapist-to-population ratio was 1:7,881 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Therapeutic Recreation Association
Box 4673
Edmonton, Alberta
T6E 5G5

President: Ms. Darlene Murphy

President Elect: Ms. Jill Kelland

c) Legislation:

There is no legislation regulating recreational therapists in Alberta. The Alberta Therapeutic Recreation Association applied for designation under the Health Disciplines Act. However, the investigation conducted by the Health Disciplines Board determined there was insufficient risk to warrant regulation.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Recreational Therapists, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	9	58,179	1:6,464
2 (Lethbridge)	15	119,110	1:7,941
3 (Pincher Creek)	6	36,149	1:6,025
4 (Hanna)	1	11,947	1:11,947
5 (Drumheller)	3	39,658	1:13,219
6 (Calgary excluding CMA)	7	50,769	1:7,253
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	34	124,098	1:3,650
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	9	78,483	1:8,720
11 (Edmonton excluding CMA)	1	36,368	1:36,368
12 (Bonnyville)	8	43,277	1:5,410
13 (Whitecourt)	7	57,521	1:8,217
14 (Hinton)	1	25,784	1:25,784
15 (Banff)	3	26,539	1:8,846
16 (Fort McMurray)	1	49,490	1:49,490
17 (High Level)	0	48,962	—
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	11	74,855	1:6,805
Census Metropolitan Area (CMA) of Calgary	93	754,033	1:8,108
Census Metropolitan Area (CMA) of Edmonton	109	839,924	1:7,706
Provincial Total	323	2,545,553	1:7,881

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 18
Community Breakdown of Practising Recreational Therapists, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	93	754,033	1:8,108
Census Metropolitan Area (CMA) of Edmonton	109	839,924	1:7,706
10,000 to 69,999			
Camrose	2	13,420	1:6,710
Fort McMurray	1	34,706	1:34,706
Grande Prairie	6	28,271	1:4,712
Lethbridge	13	60,974	1:4,690
Lloydminster	2	10,042	1:5,021
Medicine Hat	8	43,625	1:5,453
Red Deer	18	58,134	1:3,230
Wetaskwin	1	10,634	1:10,634
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	2	5,132	1:2,566
Brooks	0	9,433	—
Canmore	1	5,681	1:5,681
Coaldale	0	5,310	—
Crowsnest Pass	1	6,769	1:6,769
Drumheller	0	6,277	—
Edson	1	7,323	1:7,323
High River	1	6,269	1:6,269
Hinton	0	9,046	—
Innisfail	2	5,700	1:2,850
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	2	5,542	1:2,771
Peace River	1	6,717	1:6,717
Ponoka	13	5,861	1:451
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	3	4,881	1:1,627
Stettler	1	4,947	1:4,947
Taber	1	6,660	1:6,660
Vegreville	1	5,138	1:5,138
Whitecourt	0	6,938	—
Under 4,800	38	547,756	1:14,415
Provincial Total	323	2,545,553	1:7,881

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Recreational Therapists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	289	315	323
% Change in Number of Practising Personnel	4.0%	9.0%	2.5%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:8,384	1:7,846	1:7,881

IV. Educational Programs

Mount Royal College and Lethbridge Community College offer a two-year diploma program in recreation therapy. These programs produced a total of 42 graduates in 1990-91. In addition, Red Deer College offers a two-year university transfer program leading to a Bachelor of Arts in Recreation Administration. The University of Alberta offers a four-year undergraduate degree and a two-year master's degree in Recreation Administration. Individuals may concentrate their studies in a number of areas including recreation for special populations (Therapeutic Recreation).

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Recreational Therapists in Alberta¹

	1988-89	1989-90	1990-91 ²
A. Diploma Program			
Mount Royal College (Program Length: 2 years)			
Enrolments:			
1st Year	93	92	68
2nd Year	49	49	53
Graduates:	27	24	32
Lethbridge Community College ³ Recreational Management (Therapeutic Option) (Program Length: 2 years)			
Enrolments:			
1st Year	26	33	26
2nd Year	10	9	18
Graduates:	7	6	10
Provincial Total			
Number of Diploma Training Programs: 2			
Graduates:	34	30	42
B. Baccalaureate Programs⁴			
University of Alberta Recreation Administration (Therapeutic Recreation Concentration) (Program Length: 4 years)			
Enrolments: (all years)	97	76	N/A
Graduates:	21	20	N/A
C. Master's Program⁴			
University of Alberta Recreation Administration (Therapeutic Recreation Concentration) (Program Length: 2 years)			
Enrolments: (both years)	4	6	N/A
Graduates:	—	2	N/A

¹ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Data on the number of students enrolled and graduates, in the baccalaureate and master's program, from the University of Alberta is not included due to unavailability.

³ This program is not new but was included for the first time in the 1989 inventory.

⁴ Source: Department of Recreational and Leisure Studies, University of Alberta (Edmonton), June 1991.

Registered Nurses

I. Overview

Definition: A registered nurse and a certified graduate nurse are entitled to apply professional nursing knowledge for the purpose of

- (a) promoting, maintaining or restoring health;
- (b) preventing illness, injury or disability;
- (c) caring for the injured, disabled or incapacitated;
- (d) assisting in childbirth;
- (e) teaching nursing theory or practice;
- (f) caring for the dying;
- (g) co-ordinating health care;
- (h) engaging in the administration, education, teaching or research required to implement or complement exclusive nursing practice or all or any of the matters referred to in clauses (a) to (g).

(Source: Nursing Profession Act, S.A. 1983, ch.N-14.5)

There were 23,616 active nurses who resided in Alberta and registered with the Alberta Association of Registered Nurses (AARN) in 1991.¹ According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, 18,601 registered nurses were employed as of March 31, 1991.² The number of practising registered nurses by specialty is shown in Table 4 of this chapter. Registered nurses located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 69 percent of the total number registered. The provincial registered nurse-to-population ratio was 1:108 in 1991.

¹ Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30, 1991. Excludes inactive, honorary, associate, and retired members.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Association of Registered Nurses
11620 - 168 Street
Edmonton, Alberta
T5M 4A6

Registrar: Ms. Leanne Dekker
President: Ms. Mary Pat Skene
President Elect: Ms. Lillian Douglass

b) Legislation:

Nurses are regulated by the Nursing Profession Act which was proclaimed in 1984. Subject to certain exemptions, the Nursing Profession Act requires that all nurses practising in Alberta who wish to use the title of "registered nurse" must register with the Alberta Association of Registered Nurses.

The Act gives the Alberta Association of Registered Nurses the authority to register qualified individuals in the appropriate registers, and to grant special permits and temporary permits to others who wish to practise under the Act.

The Act establishes a Practice Review Committee which has the authority to investigate the desirable standards of competence for nursing practice in general and the competence of particular registered nurses or permit holders. Complaints concerning unskilled practice and professional misconduct by registered nurses or permit holders may be investigated by the Professional Conduct Committee. Educational requirements for registration are established by the Universities Coordinating Council. In addition, regulations specify individuals must have completed 1,125 hours or more of satisfactory nursing practice in the five years preceding registration. If this requirement is not met, a refresher course must be completed.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Nurses, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	491	58,179	1:118
2 (Lethbridge)	1,156	119,110	1:103
3 (Pincher Creek)	263	36,149	1:137
4 (Hanna)	93	11,947	1:128
5 (Drumheller)	273	39,658	1:145
6 (Calgary excluding CMA)	369	50,769	1:138
7 (Stettler)	283	39,694	1:140
8 (Red Deer)	1,334	124,098	1:93
9 (Rocky Mountain House)	78	16,734	1:215
10 (Camrose)	611	78,483	1:128
11 (Edmonton excluding CMA)	177	36,368	1:205
12 (Bonnyville)	313	43,277	1:138
13 (Whitecourt)	341	57,521	1:169
14 (Hinton)	107	25,784	1:241
15 (Banff)	207	26,539	1:128
16 (Fort McMurray)	361	49,490	1:137
17 (High Level)	208	48,962	1:235
18 (Grande Cache)	65	13,979	1:215
19 (Grande Prairie)	581	74,855	1:129
Census Metropolitan Area (CMA) of Calgary	7,269	754,033	1:104
Census Metropolitan Area (CMA) of Edmonton	9,021	839,924	1:93
Location Unknown	15	—	—
Provincial Total	23,616	2,545,553	1:108

¹ Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30, 1991. Excludes inactive, honorary, associate, and retired members.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Nurses, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	7,269	754,033	1:104
Census Metropolitan Area (CMA) of Edmonton	9,021	839,924	1:93
10,000 to 69,999			
Camrose	144	13,420	1:93
Fort McMurray	279	34,706	1:124
Grande Prairie	291	28,271	1:97
Lethbridge	773	60,974	1:79
Lloydminster	44	10,042	1:228
Medicine Hat	427	43,625	1:102
Red Deer	778	58,134	1:75
Wetaskiwin	115	10,634	1:92
4,800 to 9,999			
Banff	41	5,688	1:139
Bonnyville	55	5,132	1:93
Brooks	80	9,433	1:118
Canmore	74	5,681	1:77
Coaldale	66	5,310	1:80
Crowsnest Pass	53	6,769	1:128
Drumheller	77	6,277	1:82
Edson	48	7,323	1:153
High River	71	6,269	1:88
Hinton	50	9,046	1:181
Innisfail	81	5,700	1:70
Lacombe	111	6,934	1:62
Okotoks	78	6,720	1:86
Olds	66	5,542	1:84
Peace River	72	6,717	1:93
Ponoka	145	5,861	1:40
Rocky Mountain House	62	5,461	1:88
Slave Lake	33	5,607	1:170
St. Paul	70	4,881	1:70
Stettler	54	4,947	1:92
Taber	58	6,660	1:115
Vegreville	64	5,138	1:80
Whitecourt	45	6,938	1:154
Under 4,800	2,906	547,756	1:188
Location Unknown	15	—	—
Provincial Total	23,616	2,545,553	1:108

¹ Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30, 1991. Excludes inactive, honorary, associate, and retired members.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Registered Nurses
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel ¹	22,253	23,021	23,616
% Change in Number of Registered Personnel	2.6%	3.4%	2.6%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio:			
— Alberta	1:109	1:107	1:108
— Western Canada ³	1:110	1:109	—

IV. Educational Programs

In 1990-91, there were 14 basic education programs which met the training requirements to obtain status as a registered nurse. Of these, two were baccalaureate programs, seven were diploma programs offered in community colleges, four were diploma programs offered in hospitals and one was a diploma program for registered psychiatric nurses. These programs produced a total of 913 graduates (794 from the diploma programs and 119 from the baccalaureate programs) in 1990-91. Table 3A lists the basic education programs, including the supplementary program for psychiatric nurses.

In addition, there were 13 post-basic education programs for registered nurses. Of these, seven were specialized studies leading to a certificate, four were post-diploma baccalaureate programs and two were master's degree programs. These programs produced a total of 461 graduates (227 from post-diploma baccalaureate programs, 33 from master's programs and 201 from post-basic certificate programs) in 1990-91. Table 3B lists the post-basic education programs for registered nurses.

¹ Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30 of the indicated year. Excludes inactive, honorary, associate, and retired members.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

³ Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined. Health and Welfare Canada, July 1992.

Table 3A
Educational Programs for Registered Nurses in Alberta¹

	1988-89	1989-90	1990-91
A. Baccalaureate Nursing Programs			
University of Alberta (Program Length: 4 years)			
Enrolments:			
1st Year	103	102	102
2nd Year	89	84	99
3rd Year	92	78	77
4th Year	84	89	76
Graduates:	76	92	72
University of Calgary (Program Length: 4 years)			
Enrolments:			
1st Year	80	80	80
2nd Year	57	69	78
3rd Year	52	55	62
4th Year	52	44	49
Graduates:	51	42	47
Provincial Total			
Number of Baccalaureate Programs: 2			
Graduates:	127	134	119
B. Diploma Nursing Programs			
Grande Prairie Regional College (Program Length: 96 weeks) ²			
Enrolments:			
1st Year	33	30	28
2nd Year	19	24	23
Graduates:	18	0	21
Grant MacEwan Community College (Program Length: 88 weeks)			
Enrolments:			
1st Year	83	78	85
2nd Year	62	70	79
Graduates:	62	66	77
Keyano College (Program Length: 88 weeks)			
Enrolments:			
1st Year	27	27	25
2nd Year	18	16	20
Graduates:	19	13	18

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² The program was extended to 96 weeks, from 88 weeks, in September 1988; consequently there were no graduates in 1989-90.

Table 3A continued
Educational Programs for Registered Nurses in Alberta¹

	1988-89	1989-90	1990-91
Lethbridge Community College (Program Length: 88 weeks)			
Enrolments:			
1st Year	104	75	102
2nd Year	65	54	72
Graduates:	61	51	62
Medicine Hat College (Program Length: 88 weeks)			
Enrolments:			
1st Year	38	43	40
2nd Year	24	25	40
Graduates:	30	22	22
Mount Royal College (Program Length: 88 weeks)			
Enrolments:			
1st Year	121	110	108
2nd Year	112	116	111
Graduates:	78	89	76
Red Deer College (Program Length: 91 weeks) ²			
Enrolments:			
1st Year	87	84	80
2nd Year	61	74	70
Graduates:	57	70	68
Foothills Hospital (Program Length: 3 years)			
Enrolments:			
1st Year	150	149	146
2nd Year	105	123	122
3rd Year	113	101	124
Graduates:	99	92	112
Misericordia Hospital (Program Length: 3 years)			
Enrolments:			
1st Year	91	90	90
2nd Year	77	77	77
3rd Year	70	68	74
Graduates:	69	67	73

¹ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

² The program was extended to 91 weeks, from 88 weeks, September 1990.

Table 3A continued
Educational Programs for Registered Nurses in Alberta¹

	1988-89	1989-90	1990-91
Royal Alexandra Hospital (Program Length: 2 1/3 years)			
Enrolments:			
1st Year	115	116	120
2nd Year	119	109	107
3rd Year	97	106	102
Graduates:	96	110	100
University of Alberta Hospitals (Program Length: 2 1/3 years)			
Enrolments:			
1st Year	164	168	177
2nd Year	163	160	153
3rd Year	161	146	146
Graduates:	133	144	150
Provincial Total			
Number of Diploma Programs: 11			
Graduates:	722	724	779
C. Supplementary Nursing Diploma Programs (for Registered Psychiatric Nurses)			
Grant MacEwan Community College (Program Length: 13 months)			
Enrolments:			
1st Year	18	23	12
Graduates:	18	22	15
B & C Provincial Total			
Total Supplementary plus Basic Diploma Programs: 12			
Graduates:	740	746	794

¹ Source: Alberta Health and Social Service Education Programs Inventory. Edmonton, Alberta: Department of Advanced Education, December 1991.

Table 38
Post-Basic Education Programs for Registered Nurses in Alberta¹

	1988-89	1989-90	1990-91
A. Post-Diploma Baccalaureate Education Programs			
Athabasca University ² (Program Length: N/A)			
Enrolments:			
1st Year	—	—	494
2nd Year	—	—	—
Graduates:	—	—	—
University of Alberta (Program Length: 2 years)			
Enrolments:			
1st Year	92	95	118
2nd Year	136	224	128
Graduates:	130	101	115
University of Calgary (Program Length: 2 years)			
Enrolments:			
1st Year	50	75	75
2nd Year	20	15	13
Graduates:	52	65	64
University of Lethbridge (Program Length: 2 years)			
Enrolments:			
1st Year	72	74	76
2nd Year	114	69	74
Graduates:	52	49	48
Provincial Total			
Number of Post-Diploma Baccalaureate Nursing Programs for Diploma Nurses: 4			
Graduates:	234	215	227
B. Master of Nursing Programs			
University of Alberta (Program Length: 2 years)			
Enrolments:			
1st Year	20	23	29
2nd Year	33	48	45
Graduates:	22	15	15

¹ Source: *Alberta Health and Social Service Education Programs Inventory*. Edmonton, Alberta: Department of Advanced Education, December 1991.

² The program enrolled its first students in September 1, 1990.

Table 3B continued
Post-Basic Education Programs for Registered Nurses in Alberta¹

	1988-89	1989-90	1990-91
University of Calgary (Program Length: 2 years)			
Enrolments:			
1st Year	29	50	50
2nd Year	32	16	27
Graduates:	14	19	18
Provincial Total			
Number of Master of Nursing Programs: 2			
Graduates:	36	34	33
C. Certificate Education Programs			
Adult Critical Care Nursing ²			
Foothills Hospital School of Nursing (Program Length: 16 weeks)			
Enrolments:			
1st Year	—	38	45
Graduates:	—	36	43
Critical Care Nursing			
Misericordia Hospital School of Nursing (Program Length: 16 weeks)			
Enrolments:			
1st Year	31	33	58
Graduates:	30	38	57
Gerontological Nursing			
Grant MacEwan Community College (Program Length: 1 year)			
Enrolments:			
1st Year	26	23	23
Graduates:	16	19	14
Mental Health Nursing			
Mount Royal College Program Length: (10 months full-time) (2 1/2 years part-time)			
Enrolments:			
1st Year	44	59	58
Graduates:	7	7	11
Neonatal Intensive Care Nursing Education			
Foothills Hospital School of Nursing (Program Length: variable)			
Enrolments:			
1st Year	22	26	32
Graduates:	17	19	29

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Program commenced in the 1989-90 academic year.

Table 38 continued
Post-Basic Education Programs for Registered Nurses in Alberta¹

	1988-89	1989-90	1990-91
Occupational Health Nursing Grant MacEwan Community College (Program Length: 1 year)			
Enrolments:			
1st Year	49	56	36
Graduates:	7	12	33
Introduction to Operating Room Nursing University of Alberta Hospitals (Program Length: 12 weeks)			
Enrolments:	22	13	14
Graduates:	21	13	14
Provincial Total			
Number of Post-Basic Certificate Programs: 7			
Graduates:	98	144	201
Provincial Total			
Number of Post-Basic Education Programs: 13			
Graduates:	369	393	461

Refresher Programs:

In 1990-91, six institutions (Grande Prairie Regional College, Grant MacEwan Community College, Keyano College, Lakeland College, Lethbridge Community College, and Red Deer College) offered refresher courses in nursing for individuals returning to practise or those requiring upgrading of credentials to meet registration requirements. In the 1990-91 academic year, 346 students were enrolled in these programs and 329 graduated.¹

¹ Source: Alberta Health and Social Service Education Programs Inventory. Edmonton, Alberta: Department of Advanced Education, December 1991.

Table 4
Practising Nurses by Specialty and Personnel-to-Population Ratios
by Specialty, Alberta, 1991

Specialty	Number of Practising Nurses ¹	Personnel-to-Population Ratio ²
Administrative	1,570	1:1,621
Community/Public Health	787	1:3,235
Emergency Room	661	1:3,851
Home Care	641	1:3,971
Intensive Care Units (C.C.U., I.C.U., Burn)	1,286	1:1,979
Intravenous Therapy	46	1:55,338
Labor Delivery/Recovery Suite	379	1:6,716
Long Term Care/Rehabilitation	2,080	1:1,224
Maternal/Child	904	1:2,816
Medical/Surgical	4,271	1:596
Nursing Education	874	1:2,913
Occupational/Staff Health	266	1:9,570
Operating Room	674	1:3,777
Out-Patient Services	311	1:8,185
Pediatrics	616	1:4,132
Physicians' Offices, Medical or School Clinics	721	1:3,531
Psychiatric Wards	665	1:3,828
Recovery Room	172	1:14,800
Short Stay Unit	139	1:18,313
Specialty Total	17,063	1:149
General Duty and Other Areas	1,538	1:1,655
Grand Total	18,601³	1:137

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Ratios calculated using a provincial population of 2,545,553; 1991 Census, Statistics Canada.

³ The total number of personnel in Table 4 is less than the total number of personnel in Tables 1A and 1B. This table shows the number of practising personnel as of March 31, 1991 whereas Tables 1A and 1B show the number of active nurses who were registered with the Alberta Association of Registered Nurses as of September 30, 1991.

Registered Psychiatric Nurses

I. Overview

Definition: Provide nursing care to patients with mental and emotional problems in hospitals and clinics or in private homes. Administer prescribed medications and treatments and attend to total nursing care of assigned patients. Observe, record and report symptoms and changes in patient's condition. Confer with psychiatrists, psychologists, social workers, occupational therapists and other specialists to evaluate patient's condition and to plan therapy. Encourage patients to participate in routine work functions and recreational, community and other activities to build self-confidence and to develop relationships with others. Counsel patients at home or in clinic and evaluate patient's adjustment in community.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,309 registered psychiatric nurses who resided in Alberta and were active members of the Registered Psychiatric Nurses Association of Alberta (RPNAA) on April 30, 1991.¹ Geographic variables with respect to this data were not available. Therefore, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

According to the survey, 929 registered psychiatric nurses were practising in the province in 1991.² Registered psychiatric nurses located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 52 percent of the total. The provincial psychiatric nurse-to-population ratio was 1:2,740 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Registered Psychiatric Nurses Association of Alberta
#201, 9711-45 Avenue
Edmonton, Alberta
T6E 5V8

Executive Director/Registrar: Mr. Tim Schultz
President: Ms. Diane Winter

b) Legislation:

Since January 1, 1988, registered psychiatric nurses have been regulated under the Health Disciplines Act. The Registered Psychiatric Nurses Association of Alberta is designated under the Act as the body responsible for registration of members and handling of complaints. Through regulations, the Health Disciplines Board sets the educational qualifications required for registration. The regulations also reserve the titles 'psychiatric nurse' and 'registered psychiatric nurse' for registered members.

¹ Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of April 30, 1990.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Service Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Psychiatric Nurses, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	10	58,179	1:5,818
2 (Lethbridge)	29	119,110	1:4,107
3 (Pincher Creek)	22	36,149	1:1,643
4 (Hanna)	2	11,947	1:5,974
5 (Drumheller)	12	39,658	1:3,305
6 (Calgary excluding CMA)	1	50,769	1:50,769
7 (Stettler)	3	39,694	1:13,231
8 (Red Deer)	270	124,098	1:460
9 (Rocky Mountain House)	1	16,734	1:16,734
10 (Camrose)	35	78,483	1:2,242
11 (Edmonton excluding CMA)	3	36,368	1:12,123
12 (Bonnyville)	11	43,277	1:3,934
13 (Whitecourt)	4	57,521	1:14,380
14 (Hinton)	8	25,784	1:3,223
15 (Banff)	2	26,539	1:13,270
16 (Fort McMurray)	3	49,490	1:16,497
17 (High Level)	2	48,962	1:24,481
18 (Grande Cache)	1	13,979	1:13,979
19 (Grande Prairie)	22	74,855	1:3,403
Census Metropolitan Area (CMA) of Calgary	89	754,033	1:8,472
Census Metropolitan Area (CMA) of Edmonton	399	839,924	1:2,105
Provincial Total	929	2,545,553	1:2,740

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Psychiatric Nurses, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	89	754,033	1:8,472
Census Metropolitan Area (CMA) of Edmonton	399	839,924	1:2,105
10,000 to 69,999			
Camrose	25	13,420	1:537
Fort McMurray	1	34,706	1:34,706
Grande Prairie	15	28,271	1:1,885
Lethbridge	25	60,974	1:2,439
Lloydminster	0	10,042	—
Medicine Hat	10	43,625	1:4,363
Red Deer	72	58,134	1:807
Wetaskiwin	3	10,634	1:3,545
4,800 to 9,999			
Banff	1	5,688	1:5,688
Bonnyville	2	5,132	1:2,566
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	1	6,769	1:6,769
Drumheller	0	6,277	—
Edson	1	7,323	1:7,323
High River	0	6,269	—
Hinton	7	9,046	1:1,292
Innisfail	0	5,700	—
Lacombe	1	6,934	1:6,934
Okotoks	0	6,720	—
Olds	1	5,542	1:5,542
Peace River	2	6,717	1:3,359
Ponoka	196	5,861	1:30
Rocky Mountain House	1	5,461	1:5,461
Slave Lake	0	5,607	—
St. Paul	8	4,881	1:610
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	2	5,138	1:2,569
Whitecourt	0	6,938	—
Under 4,800	67	547,756	1:8,175
Provincial Total	929	2,545,553	1:2,740

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Registered Psychiatric Nurses
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	1,169 ¹	1,243 ²	929 ³
% Change in Number of Registered Personnel	3.3%	6.3%	N/A
Population (Alberta) ⁴	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:2,073	1:1,988	1:2,740

IV. Educational Programs

Currently, only the Alberta Hospital, Ponoka offers a two-year hospital-based psychiatric nursing diploma program. The program previously offered at Alberta Hospital, Edmonton was discontinued. Enrolment for the program was suspended in 1989, with the last class graduating in 1991. Together both programs produced 47 graduates in 1990-91. Before students are eligible for registration, they must pass an examination approved by the Health Disciplines Board.

Table 3
Educational Programs for Registered Psychiatric Nurses in Alberta⁵

	1988-89	1989-90	1990-91
Psychiatric Nursing Diploma⁶			
Alberta Hospital — Edmonton (Program Length: 2 years)			
Enrolments:			
1st Year	24	26	0
2nd Year	13	12	12
Graduates:	12	12	12
Alberta Hospital — Ponoka (Program Length: 2 years)			
Enrolments:			
1st Year	40	40	50
2nd Year	32	40	45
Graduates:	28	32	35
Provincial Total			
Number of Training Programs: 2 (1 since 1989)			
Graduates:	40	44	47

¹ Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of December 31, 1989.

² Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of April 30, 1990.

³ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee.

⁴ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁵ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

⁶ The school of nursing closed on June 30, 1991.

Rehabilitation Practitioners

I. Overview

Definition: Rehabilitation practitioners work in the provision of rehabilitation programs to the developmentally handicapped in a community or institutional setting. These workers are normally responsible for the delivery of established care and developmental programs based on client's needs in the areas of residence, family support, vocation, social education, recreation/leisure or developmental day care.

(Source: Alberta Family and Social Services)

Since registration with the Alberta Association of Rehabilitation Practitioners is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 1,425 rehabilitation practitioners practising in Alberta in 1991.¹ Rehabilitation practitioners employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 62 percent of the total. Another 20 percent were located in Census Division 8 (Red Deer) where Michener Centre, the province's largest institution for the developmentally handicapped, is located. The provincial rehabilitation practitioner-to-population ratio was 1:1,785 in 1991.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None.

b) Professional Association:

Alberta Association of Rehabilitation Practitioners
P.O. Box 386
Edmonton, Alberta
T5J 2J6

President: Ms. Brenda Davidson

c) Legislation:

Rehabilitation practitioners have been designated to be regulated under the Health Disciplines Act; a Rehabilitation Practitioners Committee was established under this Act. Currently the government is re-evaluating the need to regulate this discipline.

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Rehabilitation Practitioners, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	28	58,179	1:2,078
2 (Lethbridge)	39	119,110	1:3,054
3 (Pincher Creek)	2	36,149	1:18,075
4 (Hanna)	1	11,947	1:11,947
5 (Drumheller)	5	39,658	1:7,932
6 (Calgary excluding CMA)	9	50,769	1:5,641
7 (Stettler)	16	39,694	1:2,481
8 (Red Deer)	285	124,098	1:435
9 (Rocky Mountain House)	11	16,734	1:1,521
10 (Camrose)	60	78,483	1:1,308
11 (Edmonton excluding CMA)	5	36,368	1:7,274
12 (Bonnyville)	15	43,277	1:2,885
13 (Whitecourt)	4	57,521	1:14,380
14 (Hinton)	3	25,784	1:8,595
15 (Banff)	9	26,539	1:2,949
16 (Fort McMurray)	4	49,490	1:12,373
17 (High Level)	1	48,962	1:48,962
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	47	74,855	1:1,593
Census Metropolitan Area (CMA) of Calgary	305	754,033	1:2,472
Census Metropolitan Area (CMA) of Edmonton	577	839,924	1:1,456
Provincial Total	1,426	2,545,553	1:1,785

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Rehabilitation Practitioners, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	305	754,033	1:2,472
Census Metropolitan Area (CMA) of Edmonton	577	839,924	1:1,456
10,000 to 69,999			
Camrose	20	13,420	1:671
Fort McMurray	4	34,706	1:8,677
Grande Prairie	47	28,271	1:602
Lethbridge	36	60,974	1:1,694
Lloydminster	5	10,042	1:2,008
Medicine Hat	25	43,625	1:1,745
Red Deer	276	58,134	1:211
Wetaskiwin	5	10,634	1:2,127
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	12	5,132	1:428
Brooks	0	9,433	—
Canmore	0	5,681	—
Coaldale	0	5,310	—
Crowsnest Pass	0	6,769	—
Drumheller	5	6,277	1:1,255
Edson	3	7,323	1:2,441
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	1	5,700	1:5,700
Lacombe	7	6,934	1:991
Okotoks	0	6,720	—
Olds	9	5,542	1:616
Peace River	0	6,717	—
Ponoka	1	5,861	1:5,861
Rocky Mountain House	11	5,461	1:496
Slave Lake	1	5,607	1:5,607
St. Paul	3	4,881	1:1,627
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	30	5,138	1:171
Whitecourt	0	6,938	—
Under 4,800	43	547,756	1:12,739
Provincial Total	1,426	2,545,553	1:1,785

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Rehabilitation Practitioners in Alberta, 1989, 1990,
and 1991

	1989	1990	1991
Number of Practising Personnel ¹	1,465	1,396	1,426
% Change in Number of Practising Personnel	8.5%	-4.7%	2.1%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:1,654	1:1,770	1:1,785

IV. Educational Programs

Training in rehabilitative services is offered in one-year certificate programs, two-year diploma programs, and a four-year baccalaureate program. Alberta Vocational College — Lac La Biche, Grande Prairie Regional College and Mount Royal College offer certificate programs of approximately one year in length. The diploma programs are offered at Grande Prairie Regional College, Grant MacEwan Community College, Lakeland College, Lethbridge Community College, Mount Royal College and Red Deer College; the baccalaureate program is offered at the University of Calgary. In the 1990-91 academic year the certificate, diploma and baccalaureate programs produced 14, 119 and six graduates, respectively.

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Rehabilitation Practitioners in Alberta¹

	1988-89	1989-90	1990-91
A. Certificate Programs in Rehabilitation Services			
Alberta Vocational College — Lac La Biche (Program Length: 36 weeks)			
Enrolments:			
1st Year	9	11	19
Graduates:	8	9	11
Grande Prairie Regional College ² (Program Length: 44 weeks)			
Enrolments:			
1st Year	13	17	—
Graduates:	8	10	—
Medicine Hat College ³ (Program Length: 1 year)			
Enrolments:			
1st Year	21	—	—
Graduates:	12	—	—
Mount Royal College (Program Length: 1 year)			
Enrolments: ⁴	77	76	66
Graduates:	3	3	3
Provincial Total			
Number of Certificate Training Programs: 3			
Graduates:	31	22	14
B. Diploma Programs in Rehabilitation Services			
Grande Prairie Regional College ⁵ (Program Length: 2 years)			
Enrolments:			
1st Year	—	—	18
2nd Year	—	—	6
Graduates:	—	—	3
Grant MacEwan Community College (Program Length: 2 years)			
Enrolments:			
1st Year	42	41	45
2nd Year	35	32	32
Graduates:	32	32	32

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² This program commenced in 1986-87, program extended to a two-year diploma in September 1990.

³ Program commenced in 1985-86 and was discontinued as of June 1989.

⁴ Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

⁵ This program commenced in 1986-87. The program was extended from a one-year certificate to a two-year diploma in September 1990.

Table 3 continued
Educational Programs for Rehabilitation Practitioners in Alberta¹

	1988-89	1989-90	1990-91
Lakeland College ² (Program Length: 2 years)			
Enrolments:			
1st year	—	23	24
2nd year	—	—	19
Graduates:	—	—	17
Lethbridge Community College (Program Length: 2 years)			
Enrolments:			
1st Year	29	30	20
2nd Year	27	21	17
Graduates:	13	13	14
Mount Royal College (Program Length: 2 years)			
Enrolments: ³			
1st Year	77	76	66
2nd Year	58	49	33
Graduates:	60	36	21
Red Deer College (Program Length: 2 years)			
Enrolments:			
1st Year	53	44	36
2nd Year	35	37	32
Graduates:	36	31	32
Provincial Total			
Number of Diploma Training Programs: 6			
Graduates:	141	112	119
C. Baccalaureate Program in Rehabilitation Education			
University of Calgary (Program Length: 4 years)			
Enrolments			
1st Year	— ⁴	— ⁵	— ⁵
2nd, 3rd and 4th Years Combined	17	24	16
Graduates:	1	5	6

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² New program, first graduating class will be in May 1991.

³ Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

⁴ Alberta Department of Advanced Education. Number of students enrolled in and graduated from Rehabilitation Education Program (University of Calgary), 1988-89.

⁵ 1989-90, 1990-91 enrolment and graduate figures; Source: The University of Calgary Fact Book, 1989-90 and 1991-92.

Respiratory Therapists

I. Overview

Definition: Administer respiratory therapy to patients in hospital or at home. Discuss patient's treatment with medical and nursing staff. Set up ventilators, incubators, manual resuscitators and other life support equipment. Attach life support equipment to patient. Operate controls of equipment to adjust airway pressure, humidity, blood gas levels, respiratory rate and other factors. Monitor patient's progress and equipment function. Perform basic pulmonary function tests to assist physician in diagnosis of respiratory illnesses. Take blood sample from patient and analyze for blood gas values, if required. Explain treatment procedures and demonstrate equipment operation to patients and hospital personnel. Perform artificial respiration and external cardiac massage, if required. Service and repair equipment and inspect all medical piping, manifolds and patient alarm system.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa Ontario: Employment and Immigration Canada, 1980)

Respiratory therapists have been regulated under the Health Disciplines Act since 1986. In April 1989 the regulatory responsibility for the discipline was transferred to the Alberta Society of Respiratory Therapists (ASRT). Therefore, registration data from the ASRT is used as the source of workforce information.

There were 632 respiratory therapists registered with the Alberta Society of Respiratory Therapists in 1991.¹ Respiratory therapists in the Census Metropolitan Areas of Calgary and Edmonton accounted for 82 percent of the total. The number of respiratory therapists registered in Alberta increased by 11.7 percent between 1989 and 1991. During the same period the provincial population grew by 5.0 percent. The provincial respiratory therapist-to-population ratio was 1:4,028 in 1991.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Society of Respiratory Therapists
#205, 4500 - 16 Avenue N.W.
Calgary, Alberta
T3B 0M6

President: Mr. Cal Niebergall
Acting Registrar: Mr. David Stone

b) Legislation:

Respiratory therapists have been regulated under the Health Disciplines Act since March 31, 1986. The Alberta Society of Respiratory Therapists is responsible for registration and discipline of practitioners. Educational qualifications have been set by the Board in regulation.

The titles "registered respiratory therapist" and "registered respiratory technologist" are reserved by regulation for registered members.

¹ Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1991.

iii. Personnel Data

Table 1A
Geographic Distribution of Registered Respiratory Therapists, Alberta, 1991

Census Division (Major Urban Centre)	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	15	58,179	1:3,879
2 (Lethbridge)	26	119,110	1:4,581
3 (Pincher Creek)	3	36,149	1:12,050
4 (Hanna)	0	11,947	—
5 (Drumheller)	2	39,658	1:19,829
6 (Calgary excluding CMA)	4	50,769	1:12,692
7 (Stettler)	0	39,694	—
8 (Red Deer)	24	124,098	1:5,171
9 (Rocky Mountain House)	0	16,734	—
10 (Camrose)	6	78,483	1:13,081
11 (Edmonton excluding CMA)	1	36,368	1:36,368
12 (Bonnyville)	3	43,277	1:14,426
13 (Whitecourt)	3	57,521	1:19,174
14 (Hinton)	0	25,784	—
15 (Banff)	3	26,539	1:8,846
16 (Fort McMurray)	4	49,490	1:12,373
17 (High Level)	1	48,962	1:48,962
18 (Grande Cache)	0	13,979	—
19 (Grande Prairie)	11	74,855	1:6,805
Census Metropolitan Area (CMA) of Calgary	217	754,033	1:3,475
Census Metropolitan Area (CMA) of Edmonton	305	839,924	1:2,754
Location Unknown	4	—	—
Provincial Total	632	2,545,553	1:4,028

¹ Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Registered Respiratory Therapists, Alberta, 1991

Community by Population Size	Number Registered ¹	1991 Population ²	Personnel-to- Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	217	754,033	1:3,475
Census Metropolitan Area (CMA) of Edmonton	305	839,924	1:2,754
10,000 to 69,999			
Camrose	3	13,420	1:4,473
Fort McMurray	4	34,706	1:8,677
Grande Prairie	10	28,271	1:2,827
Lethbridge	25	60,974	1:2,439
Lloydminster	1	10,042	1:10,042
Medicine Hat	15	43,625	1:2,908
Red Deer	19	58,134	1:3,060
Wetaskiwin	1	10,634	1:10,634
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	1	5,132	1:5,132
Brooks	0	9,433	—
Canmore	1	5,681	1:5,681
Coaldale	0	5,310	—
Crowsnest Pass	2	6,769	1:3,385
Drumheller	0	6,277	—
Edson	0	7,323	—
High River	0	6,269	—
Hinton	0	9,046	—
Innisfail	0	5,700	—
Lacombe	0	6,934	—
Okotoks	2	6,720	1:3,360
Olds	1	5,542	1:5,542
Peace River	0	6,717	—
Ponoka	0	5,861	—
Rocky Mountain House	0	5,461	—
Slave Lake	0	5,607	—
St. Paul	1	4,881	1:4,881
Stettler	0	4,947	—
Taber	0	6,660	—
Vegreville	1	5,138	1:5,138
Whitecourt	0	6,938	—
Under 4,800	19	547,756	1:28,829
Location Unknown	4	—	—
Provincial Total	632	2,545,553	1:4,028

¹ Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1991.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Respiratory Therapists
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Registered Personnel	566 ¹	610 ²	632 ²
% Change in Number of Registered Personnel	18.4%	7.8%	3.6%
Population (Alberta) ³	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:4,281	1:4,052	1:4,028

IV. Educational Programs

The Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology each offer a two-year respiratory therapy diploma program. There were 67 graduates from the two programs in 1990-91.

Table 3
Educational Programs for Respiratory Therapists in Alberta⁴

	1988-89	1989-90	1990-91
Diploma Program in Respiratory Therapy			
Northern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	41	44	44
2nd Year	36	39	41
Graduates:	37	38	40
Southern Alberta Institute of Technology (Program Length: 2 years)			
Enrolments:			
1st Year	26	30	30
2nd Year	26	26	29
Graduates:	23	23	27
Provincial Total			
Number of Training Programs: 2			
Graduates:	60	61	67

¹ Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of May 1, 1990.

² Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31 of the year indicated.

³ Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

⁴ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

Social Workers

I. Overview

Definition: Counsel and aid individuals and families to understand and resolve their personal and social problems. Interview clients with problems, such as personal, social and family adjustments, finances, employment, and physical and mental impairments, to determine nature, extent and causes of problems. Secure information, such as social, economic, environmental, medical and psychological factors, contributing to client's situation. Evaluate information obtained and assess client's capacities. Determine type of assistance required, counsel client regarding plans for meeting needs, and assist client to mobilize his inner capacities and environmental resources to improve social functioning. Aid client, through casework methods, to modify attitudes and patterns of behaviour by increasing understanding of himself, his problems and his part in creating them. Refer client to community agencies and other organizations and arrange for provision of appropriate assistance, such as financial aid, employment, vocational training, medical treatment, recreational opportunities or housing. Follow progress of client after immediate problems have been overcome, and compile case records and prepare reports. May secure supplementary information such as employment, police or medical records, or school reports. May work in collaboration with professionals in other disciplines.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

As of December 31, 1991 the Alberta Association of Social Workers had 1,443 registered members of which 1,043 resided in Alberta and had full practice rights.¹ Since membership in the Association is not mandatory, the survey of health and social service personnel working in Alberta conducted on March 31, 1991 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

The survey found that there were 2,926 social workers practising in Alberta in 1991.² Social workers employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 64 percent of those employed. The provincial social worker-to-population ratio was 1:870 in 1991.

¹ Source: Alberta Association of Social Workers. Number of registered members as of December 31, 1991.

² Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Association of Social Workers
#52, 9912 - 106 Street
Edmonton, Alberta
T5K 1C5

Executive Director/Registrar: Ms. Margaret Duncan
President: Mr. Gerald Mertick

b) Legislation:

Under the authority of the Social Workers Act, all individuals who wish to use the title of "registered social worker" must register with the Alberta Association of Social Workers (AASW). However, registration is not mandatory in order to practise in the province. In addition to registration responsibilities, the Association has the power to discipline its members. The Universities Coordinating Council evaluates academic qualifications of applicants trained outside of Alberta and sets examinations for registration purposes.

A new Social Work Profession Act was assented to in the 1991 spring session of the legislature, but has not yet been proclaimed.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Social Workers, Alberta, 1991

Census Division (Major Urban Centre)	Number Practising ¹	1991 Population ²	Personnel-to- Population Ratio
1 (Medicine Hat)	51	58,179	1:1,141
2 (Lethbridge)	155	119,110	1:768
3 (Pincher Creek)	11	36,149	1:3,286
4 (Hanna)	5	11,947	1:2,389
5 (Drumheller)	28	39,658	1:1,416
6 (Calgary excluding CMA)	18	50,769	1:2,821
7 (Stettler)	15	39,694	1:2,646
8 (Red Deer)	146	124,098	1:850
9 (Rocky Mountain House)	12	16,734	1:1,395
10 (Camrose)	56	78,483	1:1,401
11 (Edmonton excluding CMA)	31	36,368	1:1,173
12 (Bonnyville)	45	43,277	1:962
13 (Whitecourt)	56	57,521	1:1,027
14 (Hinton)	30	25,784	1:859
15 (Banff)	13	26,539	1:2,041
16 (Fort McMurray)	62	49,490	1:798
17 (High Level)	92	48,962	1:532
18 (Grande Cache)	5	13,979	1:2,796
19 (Grande Prairie)	223	74,855	1:376
Census Metropolitan Area (CMA) of Calgary	839	754,033	1:899
Census Metropolitan Area (CMA) of Edmonton	1033	839,924	1:813
Provincial Total	2,926	2,545,553	1:870

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 1B
Community Breakdown of Practising Social Workers, Alberta, 1991

Community by Population Size	Number Practising ¹	1991 Population ²	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	839	754,033	1:899
Census Metropolitan Area (CMA) of Edmonton	1033	839,924	1:813
10,000 to 69,999			
Camrose	21	13,420	1:639
Fort McMurray	21	34,706	1:1,653
Grande Prairie	72	28,271	1:393
Lethbridge	139	60,974	1:439
Lloydminster	16	10,042	1:628
Medicine Hat	51	43,625	1:855
Red Deer	109	58,134	1:533
Wetaskiwin	26	10,634	1:409
4,800 to 9,999			
Banff	0	5,688	—
Bonnyville	22	5,132	1:233
Brooks	8	9,433	1:1,179
Canmore	5	5,681	1:1,136
Coaldale	4	5,310	1:1,328
Crowsnest Pass	8	6,769	1:846
Drumheller	15	6,277	1:418
Edson	8	7,323	1:915
High River	4	6,269	1:1,567
Hinton	20	9,046	1:452
Innisfail	4	5,700	1:1,425
Lacombe	0	6,934	—
Okotoks	0	6,720	—
Olds	13	5,542	1:426
Peace River	24	6,717	1:280
Ponoka	22	5,861	1:266
Rocky Mountain House	12	5,461	1:455
Slave Lake	19	5,607	1:295
St. Paul	16	4,881	1:305
Stettler	5	4,947	1:989
Taber	3	6,660	1:2,220
Vegreville	17	5,138	1:302
Whitecourt	14	6,938	1:496
Under 4,800	356	547,756	1:1,539
Provincial Total	2,926	2,545,553	1:870

¹ Source: Survey of health and social service personnel working in Alberta, March 31, 1991 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: 1991 Census, Statistics Canada.

Table 2
Selected Workforce Statistics for Social Workers
in Alberta, 1989, 1990, and 1991

	1989	1990	1991
Number of Practising Personnel ¹	2,905	2,773	2,926
% Change in Number of Practising Personnel	12.4%	-4.5%	5.5%
Population (Alberta) ²	2,423,000	2,471,600	2,545,553
% Change in Population	1.4%	2.0%	3.0%
Personnel-to-Population Ratio: — Alberta	1:834	1:891	1:870

IV. Educational Programs

The University of Calgary offers both a four-year Bachelor of Social Work (BSW) program and a 12 to 18 month Master of Social Work (MSW) program. In 1990-91, the BSW and MSW programs produced 142 and 53 graduates, respectively.

Divisions of the Faculty of Social Work of the University of Calgary are located in Edmonton and in Lethbridge. Both the Edmonton and Lethbridge Divisions offer the full first professional degree (Bachelor of Social Work). Social work courses are offered in various locations throughout the province, either through on-site faculty instruction or through the University of Calgary teleconferencing network.

In addition, there are diploma programs in social services available at Grant MacEwan Community College, Mount Royal College, and Red Deer College. These programs produced a total of 164 graduates in 1990-91. There is also a community social service certificate and diploma offered by Alberta Vocational College — Lac La Biche. In the 1990-91 academic year these programs produced 16 and six graduates, respectively.

¹ Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

² Source: Revised June 1 population estimates for the years 1989 and 1990, Alberta Bureau of Statistics; June 1, 1991 census for the year 1991, Statistics Canada.

Table 3
Educational Programs for Social Workers in Alberta¹

	1988-89	1989-90	1990-91
A. Social Service Diploma Programs			
Grant MacEwan Community College (Program Length: 2 years)			
Enrolments: ²			
1st Year	179	99	177
2nd Year	100	127	70
Graduates:	87	103	63
Mount Royal College (Program Length: 2 years)			
Enrolments:			
1st Year	141	168	153
2nd Year	80	112	124
Graduates:	47	63	77
Red Deer College (Program Length: 2 years)			
Enrolments:			
1st Year	30	62	30
2nd Year	30	35	30
Graduates:	27	34	24
B. Community Social Service Certificate/Diploma			
Alberta Vocational College — Lac La Biche Program Length: (Certificate: 1 year)(Diploma: 2 years)			
Enrolments: ³			
1st Year	12	21	22
2nd Year	7	4	9
Graduates:			
Certificate	7	14	16
Diploma	6	3	6
Provincial Total			
Number of Diploma Training Programs: 4			
Graduates:	167	203	170

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² Enrolment and graduate data include part-time evening and full-time outreach data from the Grouard and the Yellowhead Tribal Council programs.

³ Enrolment data includes figures for the Slave Lake outreach program.

Table 3 continued
Educational Programs for Social Workers in Alberta¹

	1988-89	1989-90	1990-91
C. Baccalaureate Program			
University of Calgary			
Bachelor of Social Work			
(Program Length: 4 years)			
Enrolments: ²			
1st Year	2	—	2
2nd Year	51	21	15
3rd Year	206	218	216
4th Year	169	161	147
Graduates:	151	168	142
D. Master's Program			
University of Calgary			
Master of Social Work			
(Program Length: 12-18 months) ³			
Enrolments:			
1st Year	45	50	107
Graduates:	32	36	53

¹ Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1991.

² The Faculty of Social Work admits students from other faculties into the third year of the BSW program. This accounts for the discrepancy between the enrolment figures for the second year and the third year of the program.

³ The MSW program is one year in length following a BSW degree. Students with an undergraduate degree other than a BSW degree may be admitted to a two-year program.